University News

A CHRONICLE OF HIGHER EDUCATION & RESEARCH MAY 1, 1977 60 PAISE

IIT Directors under gherao by the employees of the Indian Institute of Technology, New Delhi

SRI VENKATESWARA UNIVERSITY

Applications are invited in the prescribed form for the following teaching posts in the University Service on or before **16-5-1977**.

S. No.	*Post and Department*	*No. of Posts*	*Specialisation*
I.	**S. V. University College : Tirupati :**		
1.	Professor in Botany	One (Ty.)	
2.	Professor in Zoology	One	Comparative Physiology/ Neurophysiology
3.	Professor in Geology	One	
4.	Reader in Chemistry	One	
5.	Reader in Biochemistry	One	
6.	Reader in Geology	One	
7.	Reader in Mathematics	One	Applied Mathematics
8.	Readers in Economics	Two	Mathematical Economics/ International Trade
9.	Reader in Commerce	One	
10.	Reader in Tamil	One	
11.	Readers in Education	Two	
12.	Reader in Geography	One	Agricultural Geography
13.	Reader in Population Studies	One	Statistical Methods in Demographic analysis and Census material
14.	Reader in Philosophy	One	Symbolic Logic
15.	Lecturers in Chemistry	Two	
16.	Lecturers in Statistics	Two (1 Ty.)	
17.	Lecturers in Home Science	Two (1 Ty.)	Foods and Nutrition/ Home Science Education & Extension
18.	Lecturers in Physics	Two (Ty.)	
19.	Lecturer in Economics	One	
20.	Lecturer in Philosophy	One	
21.	Lecturer in Psychology	One	
22.	Lecturer in Sociology	One	
23.	Lecturer in English	One	
24.	Lecturers in Telugu	Two (1 Ty.)	
25.	Lecturer in Law	One (Ty.)	Constitutional Law/International Law
26.	Lecturer in Sanskrit	One	Pali/Prakrit
27.	Lecturer in Urdu	One	(Preference: Degree/Diploma in Arabic/Persian)
28.	Lecturer in Education	One	
29.	Lecturer in German Language	One	
30.	Research Assistant in Psychology	One	
II.	**S.V.U. College of Engineering:Tirupati:**		
1.	Professor in Mechanical Engineering	One	Industrial Engineering or Management.
2.	Professor in Electrical Engineering	One	
3.	Professor in Electronies and Comm. Engg.	One	
4.	Reader in Electrical Engg.	One (Ty.)	
5.	Reader in Electronics & Communication Engg.	One	
6.	Lecturers in Mechanical Engineering	Three	Machine Design/Mechanical Handling or Production/ Industrial Engg./Management
7.	Lecturers in Civil Engg.	Two (1 Ty.)	
8.	Lecturers in Electrical Engg.	Two (1 Ty.)	
9.	Lecturers in Electronics & Comm. Engineering	Two	
10.	Lecturer in Mathematics	One (Ty.)	

SCALES OF PAY :

i) S.V. University College: Tirupati : (V Plan Scales)

a) Professor : Rs. 1500-60-1800-100-2000-Assessment-125/2-2500.

b) Reader/Asstt. Director : 1200 50-1300-60-1900.

c) Lecturer:Rs.700-40-1100-50-1600

d) Research Assistant : Rs. 200/- p.m. fixed.

ii) S.V.U. College of Engineering: Tirupati : (IV Plan Scales)

a) **Professor : Rs. 1100-50-1300-60-1600.**

b) Reader : Rs. 700-50-1250.

c) Lecturer :Rs.400-40-800-50-950.

(Expected to be upgraded to that of the V Plan U.G.C. Scales)

All the above posts carry D.A., etc. at the University rates.

There will be reservations for S.C., S.T., and B.C. candidates for 'LECTURERS' Posts according to U.G.C./State Government guidelines.

Prescribed application forms and particulars of qualifications, etc., can be had from the Registrar, Sri Venkateswara University, Tirupati, on payment of Rs. 5/- either by Andhra Bank Challan or by Crossed Indian Postal Order, in favour of the Registrar payable in S.V. University Campus Post Office, Tirupati-517502. Money Orders are not acceptable.

The University reserves to itself the right to fill or not to fill any posts; to relax the qualifications when candidates with prescribed qualifications are not available and to consider and appoint persons who may not have applied.

Tirupati **M.J. Kesava Murthy**
Dated : 22-3-1977. **Registrar**

PANJAB UNIVERSITY
(CHANDIGARH)

Advertisement No. 6/77

Applications are invited for the following research positions at the Centre for Advanced Study in Mathematics and the Department of Mathematics, Panjab University.

Advanced Centre	No. of **position**
1. Junior Research Fellowships (Rs. 400/- p.m. fixed) in the first two years; Rs. 500/- p.m. fixed during the next two years, if progress found satisfactory.	6
2. Senior Research Fellowship (Rs. 600/- p.m. fixed).	1
Department of Mathematics.	
1. **Research Fellow (Rs. 500/- p.m. fixed)**	1
2. **Rrsearch Scholars (Rs. 400/- p.m. fixed)**	2

The minimum requirements for *Junior Fellowship/Research Fellow/* Research Scholars is an **M.A.** with uniformly **good academic record and that** for *Senior Fellowships* is **Ph. D.** or evidence of published **work.**

Applications **on the prescribed** form available from the **office** of the Finance and Development Officer, Panjab University, Chandigarh should reach the Registrar, Panjab University, Chandigarh by 16.5.77 together with a postal order for Rs. 7.50. Those, who have appeared/expect to appear **in the** M.A examination 1977, but whose results **have not been declared, can also** apply.

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Editor : ANJNI KUMAR

Strategy for Distance Education

G.B. Shah*

It has been estimated that one quarter of the world's population will not attend any school in this century. In many of the less developed countries, that figure may be 50 per cent. In Asian countries the tradition of education reaches back over centuries. But its continuity and orderly evolution were altered, and in certain countries even totally disrupted, by the historical events of the eighteenth and nineteenth centuries which led in many countries of Asia to the loss of freedom. Under the impact of these events, traditionals institutions of education started to decline, and in the second half of the last century, new and different educational systems, mostly patterned on the systems in the Western countries, began to take shape.

In India, as a recent report of the University Grants Commission reveals, about two and a half million students with over one hundred and sixty thousand teachers are engaged in the pursuit of learning in one hundred and two universities of the country. Education seems to be one of the biggest industry in our country and much depends upon the efficiency of the systems.

The student population is on the increase at the rate of nearly 700,000 a year, according to a UNESCO survey covering 18 Asian member countries including India but excluding Japan and China. The survey showed that at all levels it jumped from 90 million to 160 million between 1960 and 1971.

In order to meet the increasing demand for education, both developing and developed countries are gradually resorting to distance education. Distance education implies utilisation of mass media like television, radio and films in addition to correspondence education either through printed matter or taped lessons on cassettes.

The largest purveyor of correspondence education in the U.S.A. is the Federal (Central) Government and the Armed Forces. University courses are regulated by the National University Extension Association, while non-university courses are governed by the rules framed by the National Home Study Council in Washington. In Britain there are tuition which has notable economic advantage both for the student and the community. According to a Russian calculation, it costs three times as much to train a student full time and one and a half times to train him in evening classes as it does to teach him by post.

**Head of the Department of Education, South Gujarat University, Surat.*

While developing strategy for correspondence education we should always remember that it should not be restricted to written assignments, despatches of reading material or programmed learning material only. A time has come when we can think of preparing a large number of cassettes dealing with some selected units. It is rather interesting to note that some Godmen of India and abroad do make use of cassettes on a very large scale. It is time, people in education learn such a strategy of making the use of hardware and software depending on the demands of the situation. While working out a strategy for distance education, we will have to keep the following points in view:

(i) Implications of cost

(ii) Effectiveness of the messages

(iii) Structure and schedule

(iv) Population of students

(v) Types of correspondence lessons

The cost of education for any reference period can include rent of land on which the institution is sited; depreciation of, and interest on capital assets in the form of buildings, laboratories and other teaching equipments; salaries of teaching and non-teaching staff; contingency expenses of the institution on items like water, telephone, postage, liveries etc.; expenditure incurred on the purchase of textbooks, stationery and transport services, boarding and lodging charges; opportunity cost of the time and effort of the students; and the value of the "net leisure foregone" by the students and the teachers.

It should be realised that correspondence education holds the promise of cost-reducation in a big way. It should be noted here that the unit cost in correspondence education reduces considerably when the number of students increases. Another factor which comes into play is the repeatability of the learning material produced. The numbers of copies to be brought out considerably affects the cost and according to a rough estimate cyclostyling is no good when the number exceeds three hundred. In some cases, depending upon the nature of instructional material, it is desirable to think of a separate answersheet so that the text material could be re-used. In sum, correspondence education should be subjected to cost analysis with an object of reducing the cost without reducing the effectiveness of the system.

Effectiveness of a message implies the following:

(a) Score on the criterion test

(b) Retention score

(c) Time taken

Correspondence education should not be restricted to one channel which is very much vogue, i.e. reading the written material. A time has come when various other channels should be tried out and research should be undertaken to maximise the effectiveness of various channels. It is generally felt that correspondence courses, as they are managed today, rest mainly on reading comprehension.

Which structure promises maximum effectiveness remains to be explored. Whether postal tuition should follow a week or two of orientation is a matter that should be decided upon on the basis of practical experience. Linking postal tuition with vacation courses seems to be a popular pattern. There is much scope for exploration in scheduling. It is desirable to try out the pattern of Sandwich courses and Bridge courses.

Distance education should keep its gates wide open for multiple entry, lenient admission rules and flexible eligibility conditions. It should cover a wide range of students coming from various regions if necessary. In correspondence education, we should be able to achieve a kind of openness which is necessary to attract a big number of people, irrespective of age, sex, and previous qualifications. In other words, correspondence education should be looked upon as a massive project on continuing education

As mentioned earlier, we should not overemphasize reading comprehension. Sending packages of reading material to a student might create monotony and even aversion. Programmed learning material can be used not only to break the monotony but also to make the messages more effective. Assignments could be made interesting by selecting questions which would test a person's ingenuity and innovativeness. One should remember that getting instruction in absentia is not what we are generally used too. We are of course used to getting our degree in absentia. The content matter and the units thereon should be covered by a variety of learning situations. Being auto-instructional in nature, the lessons prepared should be almost self-explanatory and flawless.

Correspondence education has, for a long time, suffered from a shortage of support materials which could help the course leader to use the technique and the principles of educational technology as an integral part of the course. The emphasis should be on producing interrelated modules in the form of learning packages. The present advances in the field of communications create a growing need for teachers to be trained in the principles and use of educational technology. □

Implications of use of Pocket Calculators

J.N. Kapur*

The National Advisory Committee on Mathematics Education (NACOME) of USA in its report issued in 1975 recommended that "beginning no later than the end of eighth grade a calculator should be available for each mathematics student during each mathematics class and each student should be permitted to use the calculator during all of his or her mathematical work including tests".

The recommendation was in general welcomed. However many educators wanted that though students may be allowed to use these in most classes and in most tests, there should be some classes and some tests in which students should also learn to do without them, so that students may be in a position to make calculations even if the calulators are not available or they break down.

In India also many scientists and engineers have expressed the conviction that no calculators should be allowed to children before the eighth grade. Though calculators are still costly in India, these have already posed a problem in some public schools. The calculator technology is making rapid strides and cost of these calculators is rapidly going down. Within five years, the calculators should be within the means of many students (through not of all) and this will present problems to all educators.

In the West

In Western countries, the cost of a calculator which can do all operations needed in schools is available for about 10 dollars, while the cost of scientific calculator which can do all operations needed by mathematics, science and engineering students is only about 20 dollars. In India the cost is at present about five times the foreign cost.

A typical scientific calculator may weigh 100 grams and has in its memory tables of mathematical functions and has as much information stored in its memory as can be stored in ten books of tables of about 500 pages each. The time to find the value of a function on a calculator is on an average less than one hundredth of the time required to get it from the tables.

Time-saving

A student can save tremendous amount of time in solving numerical, problems in mathematics, physics chemistry, commerce and all branches of engnineering and he can use this time in going deeper into concepts of his discipline. Moreover all calculation work is monotonous and boring and thus, calculators should increase students interest in learning.

One great advantage is for those children who because of certain reasons (very often because of weak educational backgrounds in their families) failed to develop computational abilities in early childhood. This becomes a handicap in the learning of higher mathematics, physics, commerce, engineering etc. With calculators available, they can easily overcome this handicap and start learning these subjects on an equal footing with the arithmetically advantaged children.

The possibility of calculator availablity means that in elementary classes, we should put greater emphasis on decimals than on fractions. The adoption of metric system had reduced the importance of fractions to some extent, the availability of calculators would reduce their importance still more.

With calculators, students can do ten times the problems they could do without them. This means possibility of much greater degree of verification of various laws of arithmetic including the law that the product of two negative numbers is a positive number. In fact the possibility of recognition of patterns in numbers is increased many times and the calculator can be used to strengthen intuition of students and to make discovery methods of learning mathematics a reality.

There is a misunderstanding that if a student uses a calculator, he need not use his brain. This is simply not true. A student requires more intelligence and insight to use a calculator than he needs to solve problems without a calculator. At the same time the use of a calculator strengthens his real insights. Many calculators do not have brackets and as such students have to be much more careful with calculators than without them.

When a student works with a calculator, he has to be clear about the structure of the problem and he gets enough time for having this clarity by saving time on boaring arithmetical calculations. In fact many students fail to get insight into many mathemetical and scientific problems because their entire attention and energy are used in carrying out the arithmetical calculations.

Social problem

One other advantage of calculators is that they enable students to see that they live in the modern age. Every school cannot afford an electric computer but every school can have a dozen scientific calculators and train all secondary students in their use.

One significant social problem is likely to arise because of availability of calculators. In the coming years, the children from the affluent classes will have access to calculators, while the poorer children will not have this access. Many children have even now access to these because many middle class businessmen are using these for their calculation and they do not mind their children using them for doing their mathematics and science problems. The percentage of children with access will steadily increase and may reach ten percent in the next five years in big metropolitan towns. This access will give these children a definite advantage over the other ninety percent children.

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*Prof. of Mathematics, IIT, Kanpur.

We should immediately launch some research projects to investigate among others the following problems.

(i) When and how calculators should be introduced in schools so that their use does not affect students' understanding and skill in arithmetic operations?

(ii) What advantages accrue to arithmetically disadvantaged children in learning science and mathematics with the help of calculators?

(iii) Can calculators be used to encourage the learning of basic arithmetical facts?

(iv) What is the cost-benefit analysis of the use of calculators in schools ?

(v) What special curricular materials have to be developed to exploit the full advantages of the calculators ?

(vi) How does calculator availability affect learning of algebra, geometry, probability statistics, physics, chemistry, commerce, geography, economic etc. ?

[Courtesy : The Hindu]

Role of Earth Scientists in integrated Rural Development

Nilkantha Acharya*

Earth sciences are mainly field sciences whose essentialities are realisable in its natural form at specific spots in the open field. The natural sciences of the earth like geology, geography and geophysics deal with different aspects of study of the earth, we live in, with the ultimate objective of upliftment and improved civilization of the mankind. The rural sector of India, rather than the urban areas, is the seat of such disciplines where the phenomena, problems and practice can be best studied to the maximum benefit of the rural community in the country. Under the circumstances, the role of these scientists is manifold for rural development. The Departments of Geology, Geography and Geophysics, directly under the universities in India, may be as many as the universities themselves. As such any integrated scheme by these departments can surely go a long way in creating consciousness and hence educating, providing employment opportunities and thus ultimately surveying, assessing and planning of the natural potentialities of the concerned regions for the goal of upliftment of essentially the rural community. Geologists with the students of geology in the universities can acquaint the illiterate villagers the practice of diagnosis of geological specimens, in situ, like minerals, rocks, ores and fossils. In fact such recognition of the natural specimens, which technique much depends upon the practice, experience and acquaintance in the field, can be accomplished by the rural people very satisfactorily. It is well known that the original source of information for the discovery of many important mineral and ore deposits in India has come from the native old people of the villages who have the familiarity of the history and occurence of those specimens in their own area through their life period. Originally detailed surveys in the rural areas may be made as to the availability of the mineral raw materials for small scale industries. Subsequently cottage and small scale industries, based on local mineral resources, may be established in those areas which would go a long way in alleviating the lot of the masses and to provide them relief from the natural calamities from which people from many parts of the country suffer very often. Specially labour intensive industries are to be preferred. Initially to mention a few, clay insulators and pottery, plaster of Paris, abrasives, lime, cement, mineral based paints, decorative building stones can be manufactured. It goes without saying that the involvement of local people in these industries is the key point for their successful implementation and to thrive for all the time. Of course the rural community should be made conscious and educated to realise the fruits of such rural industrialisation schemes.

To tap surface and ground water for agriculture, industry and domestic use in the rural areas is of prime importance. The part played by the disciplines of geology, geography and geophysics for it is immense. Simple geological techniques for detection of ground water (sub-surface water) resources can be taught to the native people. They may be trained for preparing surface maps of rivers, streams and nalas. Once these basic methods are realised by the rural community, they themselves can undertake surveys for the development of ground-water potentialities, construction of bunds etc. They can demarcate the areas where ground-water is abundantly available as against areas of poor supplies. Of course guidance of geologists and geographers is quite essential for these schemes of rural enlightenment and development. Since the primary need for the development of rural areas is water, all types of detailed surveys

(Contd. on page 240)

**Reader in Geology,*
Ravenshaw College, Cuttack.

Convocations

Varsities as Agents of Change

Mr. Justice A. K. Sarkar, former Chief Justice of Supreme Court, while addressing the convocation of Calcutta University stressed the need to activise universities as agents for development oriented education and to aim at individual personal growth. He said that scholars dealing with higher education in more advanced countries view the universities in modern age as one of the most powerful instruments for directing the needed change in the world in general and in their countries in particular. They perceive this role as performing the task of refining and extending the common intellectual base of arts and sciences, discovering the similarities and differences in the different cultural styles of life and improving the human ability and capacity for institutionalising ideas and extending collective capacity to find solutions to conflicts arising at decision making levels.

In countries with fast growing population and limited resources, problem of education at all levels has assumed a staggering proportion because the removal of poverty, economic growth and increased empolyment opportunities, health, housing and educational services are clamouring for priority. The problems are interrelated but integrated planned approach for a solution still eludes them. The problems which educationists are worried about these days are the drop-outs of primary school boys and subsequent employment and social problems at secondary level, the educated unemployed and limited ability even the lack of the existing system of higher education to deal with and integrate effectively in the work of national development. He stressed the need to bring about universal literarcy prior to undertaking planned programme to generate higher economic growth and expressed his hope that all educated citizens would participate in this literacy drive.

Mr. A. L. Dias, Chancellor of the University in his address said that the immediate priorities in respect of Calcutta University related to more space, a greater measure of decentralisation, more effective control over the functioning of the colleges affiliated to the university, a qualitative improvement in the standard of teaching, examination reform, keeping the academic environment free from agitational activity and streamlining the university administration. He said that some of these problems had already been examined by the Ghani Committee which had recommended for reduction in the size of the university and the decentralisation of the undergraduate and professional education under it through the establishment of autonomous regional councils and subject councils. He hoped that the State Government and the Calcutta University would sit together with a view to reaching at a consensus on the implications of some of the urgent recommendations of the Ghani Committee. In this connection he emphasised the need to implement other recommendations of the committee relating to the curtailment of jurisdiction of the university. Though this might excite controversy, he saw no reason to defer taking hard decisions. There is a danger otherwise of the entire edifice of the university crumbling under the sheer weight of numbers. He emphasised the urgent need on the part of the university to exercise more stringent control on the functioning of affiliated colleges and suggested for an early expansion and strengthening of the machinery of inspection of the colleges and advise suitable sanctions to ensure that the colleges abided by the recommendations made by the university. He also advised that measures alreardy taken to eliminate malpractices and delays in holding of examinations must be further intensified.

Dr. S. K. Mukherjee, Vice-Chancellor of the university in his address said that it was essential if the involvement of the university in the administrative matters of the colleges is reduced to the minimum leaving more time for it to attend to its primary responsibility in regard to colleges namely that of overseeing their academic standard. The colleges should be able to manage their own affairs without the intervention of the university. He attributed the deterioration of the academic climate of colleges to some extent to the breakdown in the administrative set up. The holding of regular classes and testing of students before being sent up for public examinations are no longer rigorously followed in many of the colleges. These deficiencies are likely to reflect adversely on the results of such examinations.

GAU holds 4th convocation at Junagadh

The fourth annual convocation of Gujarat Agricultural University was held at Junagadh campus this year. Shri Amarsing Chaudhary, former Minister for Agriculture and Social Welfare was the chief guest. In his convocation address the Minister stressed the role of agricultural universities in shaping the country's future. He said that when the revolutionary changes are taking place all round the agricultural universities provide a new hope for increasing agricultural production and in achieving integrated rural development of the country. He said that the teachers and students must have first hand knowledge of the problems of farmers and rural life. Their agricultural education should aim at practical farming and improving the life of the rural people. Gujarat has made good progress to increase agricultural production and the universities had a commendable role in the progress of the State. It has to take pride for starting research both in oilseeds and pulses with the support of ICAR and for starting coordinated research projects which is very important for the country. Referring to the problems of adivasi population, he said that the farmers living in tribal areas have to face different ecological conditions. If their living standard is to be improved rapidly, multipronged strategies were to be adopted and research work should be concentrated on maize, hill millets, horticultural crops, animal husbandry, poultry etc. University should expand and intensify the training of extension workers, gramsevaks and farmers. Research results should be made available to the farmers. A system of feedback between university and extension machinary would not only strengthen and improve applied research in the university but would also help the extension workers and farmers to understand the new knowledge and practices to be used effectively for increased production. He called upon the university to play its role for integrated rural development. For this a proper contact with governmental departments and voluntary agencies and other organisations connected with agricultural production, finance, marketing and rural development was necessary.

Shri V. R. Mehta, Vice-Chancellor, said that the university symbolises the dynamic changes occuring continuously in the field of technology and agriculture in the State. The university is an enterprise nearer to the soil, concerned with the fate of people who are sons of soil and stands to justify its existence in the test of its social vitality and capacity to serve rural community. The impact of science and technology has been felt strongly on the traditional society and conventional agricultural practices of the farmers. At the same time there appears contradictions, disparities and delusions, arising out of invalid assumptions, misconceived goals, distorted priorities and half hearted actions. So while new technology is available, its effective use is lacking at different places. He pleaded for Government help for small and marginal farmers. The task before the university is to re-evaluate its teaching, research and extension programme in term of these technological changes and if the university has to remain as the spearhead of technological revolution in the countryside, it has to discover new programme to create a further dent.

Role of Earth Scientists in integrated Rural Development

(*Contd. from page* 238)

of surface and sub-surface water resources need be undertaken. It is also necessary to survey saline water intrusions in coastal areas so as to devise means of converting them into fresh water. It is also necessary to analyse the chemical constituents of water so as to prevent their harmful effects to human beings, animals and even crops.

Geophysicists too can play an effective part in rural development with their modern high-sensitive instruments. They can probe the deeper horizons with considerable ease. To mention a few simple instruments, Geophysical Megger or earth tester (Resistivity meter), Geiger-Muller counter, treasure finder (Metal detector) and a host of others can be readily employed for directly reading the occurrence of subsurface material). The first instrument will delimate the ground water occurrences. The counter can detect the radio-active minerals and rocks. The treasure finder can locate any hidden conductive material, either treasures or otherwise. These are such ready-made and direct techniques that they may influence the rural population immensely. The interpretation techniques may be tough for the people to learn, but the survey-procedures can be followed in the field very easily. It is the determined effort of the geoscientists that makes the rural community much enlightened for betterment of their lot.

Thus the earth sciences can be of immense service in rural development. □

CAMPUS NEWS

IIT Directors under gherao

The Directors of three Institutes of Technology and representatives of two more were gheraoed in Delhi by the Delhi IIT employees union for over ten hours. An agreement was later on reached to consider the demands of employees. Prof. N.M. Swani of Delhi, Prof. A. Bhattacharya of Kanpur, Prof. C.S. Jha of Kharagpur and Dr. S.C. Bhattacharya, Deputy Director of Bombay IIT and Prof. P. Vankataraman of IIT Madras were in a preparatory meeting in IIT Delhi before seeing the Union Education Minister when they were gheraoed by the union workers.

The employees demanded reinstatement of eight employees and one faculty member dismissed during the emergency. They also insisted that their other demands like the recognition of their union, workers participation in management and withdrawal of departmental enquiries and decentralisation of authorities be also accepted. The union authorities had also sent a letter to the Education Minister as well as to the Director of the IIT about their grievances. The gherao by several thousand employees blocked the entrance to the senate room and squatted on the floor preventing the Directors and others from coming out of the hall. The tense situation ended late in the evening on the intervention of local police authorities. The employees and the Director of IIT, Delhi agreed that issue of reinstatement would be discussed later and the matter of department promotion would be decided after due consultations.

JNU Vice-Chancellor gheraoed

Dr. B.D. Nag Chaudhary, Vice-Chancellor, Jawaharlal Nehru University, New Delhi was gheraoed for over seven hours by members of the JNU staff association consisting of non-teaching staff. The members of the association were agitating for the immediate redressal of their grievances relating to the new rules and regulations, recruitments, promotions and other service conditions. The University Students Association also lent support to the staff association.

Dr. Nag Chaudhary agreed in principle to the demand for withdrawal of these rules and regulations and agreed to enquire into the alleged high-handedness of authorities but insisted that he would sign the minutes of the meeting detailing the agreement only after he had considered the issue in more detail. According to the agreement, new rules relating to recruitment and promotion would be suspended and the cases of those who would have otherwise benefitted by increments and promotions would be reviewed. The rules would be re-examined by a committee consisting of two members of the staff Association, two representatives of the Administration. The nominee of the Vice-Chancellor will be its Chairman. All specific cases will be referred to this Committee.

PU streamlines conduct of examinations

The Panjab University has taken a number of steps to eliminate chances of paper leakage. The whole system of conducting of examinations has been streamlined to make it foolproof against both error and mischief. Principals of colleges have been made controller of examinations for all the centres set up on their respective colleges. The superintendents and invigilating staff will work under their overall control. Question papers, answer books and other sensitive material are now kept in the safe custody of the principal. The format of answerbooks has also been completely changed and the left-over stock of old stationery is called back to be used on the university campus for the house examinations. Earlier the unused answer books remained with the centres for the use of subsequent examinations and the pilferage could not be ruled out which led to serious problems. The introduction of new answerbooks has completely eliminated the possibility of the smuggling in of the question papers attempted outside the examination hall. The despatch of inspection staff and flying squads right from the day of commencement had a salutary effect and the use of the unfairmeans has been minimised. Major difficulty, according to Mr. D.P. Verma, Registrar of the university however was the reluctance of invigilation staff to report for duty. This was due to lack of incentive for this work in the wake of the enforcement of new UGC grades. The university had to make necessary arrangements in case of 10 to 20 percent invigilators who did not turn up. The university is examining the possibility of finding incentives for invigilation work.

New departments for Patna University

Dr. A.K. Dhan, Vice-Chancellor of Patna University, is keen to have a linguistic department and an independent faculty of fine arts. The department would work for developmant of national and international languages. The Faculty of fine arts would promote cultural activities in the university for all round development of students. The University Grants Commission also recommended the opening of these departments during the Fifth Plan period.

The IAS coaching centre of the university is also being reorganised so as to impart better coaching to the students. This centre was opened by the State Government in 1949. A good number of teachers of the university are taking part in the activities of the centre. They are paid a sum of Rs. 40/- per lecture. The State Government is keen to provide additional financial assistance provided the Central Government also come forward for improving the conditions of the centre. It is proposed to involve more Harijan and Adivasi candidates and provide them with adequate coaching for the Central examinations conducted through the Union Public Service Commission.

The university also decided to grant one year sabbatical leave to teachers after completion of six years teaching work on the pattern of Jawaharlal Nehru University and Indian Institute of Technology, New Delhi. The leave would be meant for conducting research work.

The Vice-Chancellor is anxious that the university departments should organise frequent seminars and symposia at different levels. They should form a part of regular teaching methods. The university would be hosting the all–India Urdu teachers conference this year.

Archaeological Survey's move to involve students

Mr. M.N. Deshpande, Director-General of the Archaeological Survey of India, launched a novel scheme enabling the universities to undertake exploration and excavation so that archaeological material was identified and interpreted for the prupose of bringing out the personality of the region. While speaking at Bhopal he made strong plea for the creation of awareness among the public for preserving their cultural and historical heritage. For this purpose it was necessary to popularise archaeology in schools, colleges and universities by starting history and archaeology clubs and museums. Textbooks for the schoool children should also include lessons on cultural subject which will make them appreciate their heritage. Madhya Pradesh was unique as it was the meeting ground of influences and culture in the north, south, east and west. It is a hoary antiquity and very rich cultural heritage. He referred to the discovery of the site after site containting prehistoric rock painting in the State in the last few years. He said that these rock shelters were of the early stone age but more careful reappraisal should be made scientifically. Madhya Pradesh showed vivid progress of man from savagery to civilisation. It was in this region that Bhills, Dangs, Gands, Santhals, Uroans, Baigas, Gadabas and Mariyas, reside in large number. It was the task of historians to establish the identity of these pre-historic artists who had left a rich picture of their life. At the same time all efforts had to be made to preserve the character of this country so that the hills and jungles retained their ancient character. This could be done by declaring certain areas as national parks.

The study of living tribal cultures in this area deserved over-riding poriority along with the study of archaeological cultures.

Patiala opts for grades

The Punjabi University has decided to introduce from 1977-78 session the system of grading and credit in place of marking the examination scripts of candidates for M.A. in English, History, Education and Linguistics and MSc in Matehmatics, Statistics and Chemistry. The university has also decided to introduce the semester system in the case of postgraduate courses in all subjects as a measure towards examination reforms.

It is also proposed to introduce internal assessment system as a part of the learning process with proper safeguards or its smooth and successful working. The replacement of the traditional system of Departments by schools to develop inter-disciplinary approach to knowledge and to ensure team work in research projects and better utilisation of staff and equipment is also under the active consideration of the university authorities. A tutorial bank was being organised to provide extra facilities to weak students for academic consultation and help of teachers on a voluntary basis. Teachers were being approached for this project to be started from the ensuing academic session. The university since its inception in 1962 had produced about 600 books. Out of this 70 were published during the last two years and the other 50-60 books were expected to be produced during the next three months.

Roorkee's code of conduct

The University of Roorkee has prescribed a code of conduct for its employees, particularly its teaching staff. The saliant features of the code are : (1) Avoidance of any action which tend to incite students against colleagues or administration ; (2) Avoidance of all considerations of caste, creed, religion, race or sex in relationships with colleagues and others ; (3) Strict avoidance of public utterances, publication or broadcasts which may amount to or involve unwarranted criticism of the policies or action of the university or which may embarrass the relations between the university and the Central or any State Government or any institution or members of the public; (4) Strict avoidance of association with any activity or enterprise of questionable character; (5) Honesty and impartiality and assessment of students' work and in all other dealings, integrity and devotion in the performance of academic duties, courtesy consideration and goodwill towards members of staff and students.

The code further lays down that no employee shall communicate, directly or indirectly, except in accordance with any general or special orders from the university authorities, any official document or information to any person. Except with previous sanction no employee shall give evidence in connection with any inquiry conducted by any person, committee or authority other than the university, Parliament, State Legislature or a judicial or magisterial body. During or outside normal working hours and on holidays, the code insists, every employee of the university shall discharge faithfully the duties and responsibility assigned to him by competent authority. Any infraction of the code shall constitute improper conduct.

Big instrumentation complex for Chandigarh

To ensure proper maintenance and repair of the increasing number of instruments acquired by various departments of Panjab University, an instrumentation complex is shortly being set up on the campus in Chandigarh. The University Grants Commission has agreed to assist the central instrumentation laboratory which will help research in physical and biological sciences. The laboratory will comprise a high-calibre computer, central workshop, liquid nitrogen plant and analytical instruments. Besides the UGC grant the university will allocate funds for the laboratory building which is likely to cost Rs. twenty lakhs. The computer costing about fifty lakhs with the memory of 256K and likely to be imported from the Soviet Union, will be one of the biggest in the region. It will help scientists in their calculations and facilitate close coordination of experimental and theoretical studies. It will also be useful for studies in economics, sociology, business management, commerce, etc. At present the university has a comparatively small computer IBM 1620 which meets the university's needs only partially. With the installation of new computer, not only the researchers be able to do their entire work on the campus but the pace of research work will also be accelerated. The instrumentation complex will serve the needs of biological and biochemical sciences on the one side and those of physical sciences on the other. Nuclear magnetic spectrometer and a mass spectrometer are also being obtained specifically for chemical and biochemical studies. This will further facilitate studies in macromolecules found in organic compounds like pharmaceutical drugs. The departments of microbiology, chemistry and pharmacy are specially interested in this.

There is a possibility for regional sophisticated instrumentation centre being set up on the campus supplementary and complementary to the one mentioned above. Financed by the Ministry of Science and Technology it will serve the whole region in analytical work required not only by the universities concerned but also by research and technical institutions of the region of Punjab, Haryana, Himachal Pradesh and Jammu & Kashmir.

Programmes for foreign students

The Calicut University has arranged meaningful social and educational programmes for its foreign students. Under the new programmes the foreign students would come closer to the current of socio-cultural life of the area. Uptil now for various reasons foreign students were little isolated from the mainstream of student life of the city. There are at present 37 such students studying in various colleges affiliated to the university but a majority of them are from Medical College of the city and the Regional Engineerring College in Calicut.

A hospitality committee has been constituted by the university to enlist the cooperation and help of the various social service clubs and organisations in the city. The Vice-Chancellor, Dr. N.A.Noor Muhammad, has requested the Presidents and Secretaries of the Rotary, Lions, Jaycees, M.E.S., Y.M.C.A. and Y.W.C.A. and other cultural organisations in the city to come forward to make the stay of the foreign students as happy as possible. Visists to Indian homes, participation in local festivals, extended stay with Indian families, cultural programmes, picnics, orientation courses etc. are some of the other programmes that have been planned for them.

Pannel for review

A high powered committee has been constituted by the University of Delhi to review victimisation cases of university and college employees. The Pro-Vice-Chancellor, Dean of Colleges, Director of South Delhi Campus, Registrar, Finance Officer, Controller of Examinations of the university and six representatives of the employees would constitute this committee. All the outstanding issues between the karamcharis and the university authorities would be referred to this panel for detailed examination.

Ghastly attack on Lamba

Dr. P.S. Lamba, Vice-Chancellor of Udaipur University sustained serious injuries and had to be hospitalised when he was attacked by a group of students at his residence. The Vice-Chancellor is reported to be out of danger now. Those arrested in this connection by the local police include a former lecturer of the university.

A silent procession of staff and students of the university went to the Collector's office demanding immediate arrest of guilty persons. Students of Rajasthan University in Jaipur also protested against this ghastly attack on the Vice-Chancellor and submitted a memorandum to Dr. G. C. Pande. Similar memorenda were also given to the

Chief Secretary and to the Inspector-General of Police.

New Chairman for SNIPES

Dr. Pratap Chandra Chunder, Union Education Minister while speaking in Calcutta said that he would endeavour to remove favourtism and factionalism from sports in the country. A national sports policy would be formulated after consultation with concerned organisations, sportsmen and journalists. Due emphasis will be placed on the development of indigenous games and participation of rural masses in various sports and games. He wanted to open a branch of the National Institute of Sports in each region of the country. The Society for National Institutes of Physical Education and Sports which administers National Institute of Sports, Patiala and the Laxmibai College of Physical Education, Gwalior, would be reconstituted shortly with Shri Sikander Bakht, Union Minister for Works and Housing at its Chairman.

India contributes to the UN University

India has taken an active part in the establishment of the United Nations University from the very beginning. It has promised to contribute $ 75,000 annually for ten years to its endowment fund. The university is located in Tokyo. Recently the Central Food Technological Research Institute, Mysore was selected as university's associated institution. Fellows from different countries are undergoing further training at this centre. Researchers and university heads from various European countries recently held a meeting in Paris to discuss the future of U N University which is not a campus university but is affiliating important centres all over the world.

Norms for retrenchment

The Gujarat Government has laid down norms for college managements in regard to the retrenchment of teachers who have become surplus under the new pattern of education. These norms are expected to ensure that managements did not victimise selected teachers on the pretend of implementing new system. The years of service put in by a teacher will have to be taken into account. Seniority in the same Institution will be determined by the length of service and not by emoluments. The Education Minister Mr. Navalbhai Shah has assured that all surplus teachers—about 1500 to 2000—would be absorbed in the higher secondary schools and their scales and emoluments would be suitably protected. If any teacher felt that he had been retrenched by the college in contravention of these norms, he could appeal to the Director of Education.

IIT pattern for university reservation of seats

The University Grants Commission has advised universities to follow the pattern of Institutes of Technology in regard to reservation of seats for students belonging to weaker sections. In the IITs and the Indian Institute of Science, Bangalore, 15% of the total seats are reserved for Scheduled Castes and 5% for Scheduled Tribes. These students are exempted from payment of registration fee, tuition fee and hostel rent. The Commission has agreed to entertain applications directly from such students for the award of junior research fellowships. Colleges and Universities have been further asked to reserve 20% of seats in their hostels for students for these categories irrespective of the fact whether the hostels were built with UGC assistance or otherwise.

GND adopts grades

Mr. Jagjit Singh, Pro-Vice-Chancellor of Guru Nanak Dev University said in Amritsar that the marking system in the university would be replaced with the grading system for various examinations in the Science Faculty. The grading system would reflect a more realistic picture of academic standards and would go a long way towards improving evaluation techniques.

The university has also adopted the semester system in examinations in law, diploma course in labour laws and labour administration, diploma course in the taxation law, Master of City and Regional Planning, BSc (Hons) in Chemistry and in Biology, MSc (Hons) in Chemistry and in Biology, MPhil in Chemistry, MSc in Applied Chemistry and Instrumental Analysis. As a result of the examination reforms introduced by the university, the annual examinations at the various examination centres in the districts of Amritsar, Gurdaspur, Jullundur and Kapurthala were going on smoothly. The total number of examinees have risen to over 67,000 this year.

Recent changes in Punjabi Varsity

The university will soon replace the traditional system of departments by the system of 'schools' in the interest of promoting inter-disciplinary approach to knowledge, team work in undertaking research projects and better utilisation of staff and equipment. The semester system which has been earlier introduced as a pilot project for the Physics Department has been extended to other departments with success. It is now proposed to introduce it in all teaching departments of university as well as in the postgraduate classes of the affiliated colleges. The system has been found to be conducive to the habit of work by the students round the year unlike as at present for a month or two near the examination.

The system of internal assessment will be re-introduced after providing proper safeguards and making the teachers and students aware of its basic ethics. Under the examination reforms another step has been taken by the university in the introduction of grading and credits to replace the traditional system of marks for the performance of students. The system will provide a more realiable means of evaluating learning achievements and ensure better capability among disciplines and within the disciplines by the use of a common scale. The students will be able to elect for areas of study more in keeping with their attitudes and attainments. The system will also facilitate the intra-state and inter-state migration of students by furnishing a uniform means of evaluation among the universities. As a pilot measure this system is being introduced in six departments of mathematics, satistics, chemistry (except forensic medicine), english, history, education & linguistics. During the current summer vacation the university proposes to hold five re-orientation courses to educate teachers on various educational problems like the new 10+2+3 pattern, examination reforms, etc. About 500 teachers from the affiliated colleges are likely to participate in these programmes.

The Punjabi University Teachers Association has demanded representation on the various committees of the university to settle its various problems including removal of anomalies in the UGC pay scales for the research staff and confirmation in service of university teachers so that their view points could also be placed before these committees As to the allotment of examination work, PUTA has urged the adoption of Delhi pattern under which it is optional for university teachers to accept such work in respect of candidates other than regular campus students. Teacher accepting such work are paid full remuneration. It was also suggested that there should be rational distribution of examination work by a committee with proper representation of the Association.

UGC announces national lecturers

The University Grants Commission in 1970 instituted a scheme to promote academic standards in universities and colleges. Under this scheme a number of outstanding teachers and research workers are invited by the Commission to visit a few universities or institutions to give a series of lectures and to participate in the academic programmes and also to establish effective contacts with institutions of higher education. The Commission has selected the following scholars as national lecturers for the year 1977-78.

PHYSICS: Prof. AR Patel, Sardar Patel University; Prof. AK Saha, Institute of Nuclear Physics, Calcutta. CHEMISTRY: Prof. AKN Reddy, Indian Institute of Science, Banglore; Prof. MV George, Indian Institute of Technology, Kanpur. BOTANY: Prof. JJ Shah, Sardar Patel University; Dr. P. Kachroo, Kashmir University. MATHEMATICS and STATISTICS: Prof. K Ramachandra, Tata Institute of Fundamental Research Bombay; Prof SK Trehan, Panjab University. ZOOLOGY : Prof. Sivatosh Mookerjee. Jawaharlal Nehru Universiry, New Delhi; Prof. Ashok Ghose, Calcutta University. GEOGRAPHY: Dr. Moonis Raza, Jawaharlal Nehru University, New Delhi; Prof. S. Menzoor Alam, Osmania University. GEOLOGY: Prof. OP Verma, Indian School of Mines, Dhanbad; Prof. KS Valdiya, Delhi University. ENGINEERING and TECHNOLOGY: Prof. MM Sharma, Bombay University. HOME SCIENCE: Dr. PS Chari, MS University of Baroda. HISTORY: Lallanji Gopal, Banaras Hindu University; Prof. AR Kulkarni, Poona University. POLITICAL SCIENCE: Prof. AP Rana, MS University of Baroda; Prof. T Bose, Dibrugarh University. ECONOMICS: Prof. P.Brahmanand, Bombay University; Prof. T. Majumdar, Jawaharlal Nehru University, New Delhi. SOCIOLOGY: Prof. Indra Deva, Ravishankar, University; Prof. JJ Panakal, Tata Institute of Social Sciences, Bombay. PHILOSOPHY: Prof. KS Mutry, Sri Venkateswara University; Prof. Rajendra Prasad, Indian Institute of Technology, Kanpur. PSYCHOLOGY: Prof. MA Ansari, Aligrah Muslim University: ENGLISH: Dr. VK Kantak, Central Institute of English and Foreign Langauges, Hyderabad. URDU: Dr. Khurshid-ul-Islam, Aligrah Muslim University. HINDI: Dr. SP Kishore, Bihar University. KANNADA: Dr. MM Kalvurgi, Karnatak University. FINE ARTS: Prof. Anand Krishna, Banaras Hindu University. COMMERCE: Prof: BN Asthana, Allahabad University. LAW: Prof. TS Rama Rao, Madras University.

Committee of VCs meets in Calcutta

The Committee of Vice-Chancellors of State Universities in West Bengal has suggested to the State Government that revised pay scales for the university employees be announced within next six months. Dr. Ramaranjan Mukherjee, Vice-Chancellor of Burdwan University also met the Education Minister, Mr. Mrityunjoy Banerjee and discussed with him the situation created by the employees strike which has paralysed the examinations of the universities in West Bengal. A deputation on behalf of the federation of employees had also met the Vice-Chancellors. Mr. Dilip Chakravarty. Member of Parliament and Mr. Amitosh Chakravarty of the WBCUTA had a meeting with the Vice-Chancellors in connection with the indefinite strike of non-teaching staff.

IIT develops hot pressed garnets techniques

Indian Institute of Technology Bombay, has achieved a breakthrough by successfully developing hot pressed garnets after two years of intensive research under a sponsored project. Hot

Pressed Garnets are used in high power ferrite devices like isolators and circulators which are, in turn, used in satellite, radar and other microwave communication systems. Till now this material is available only from advanced countries. Our country's current requirements of this material are small and can be met by the technique developed at IIT Bombay.

Using this technique indigenous development of hot *pressed ferrites for video recording* heads and for switching devices is also possible. This process has been developed by Dr. M.J. Patni and Mr. Om Prakash under the guidance of Prof C.M. Srivastave of Department of Physics, IIT Bombay.

New courses at Bombay IIT

A two-year postgraduate programme in computer science and environment science would be started by IIT Bombay as a need-oriented course from the next academic session. There has been an unprecedented demand for various categories of scientific personnel well trained in the filed of computer for quite some time. Similarly there was gowing need of environmental scientists in the country for a comprehensive course. These courses will lead to the MSc and MTech degrees. While the computer science programme will be open to science graduates with Mathematics, Physics or Statistics, the environmental science programme will be open to candidates with Bachelor's Degree in Engineering or Master's degree in Chemistry or Physics.

In the implementtaion of the *10+2+3 pattern of education*, the institute is offering a four-year undergraduate programme leading to Bachelor's degree in various branches of Engineering for the entrants who would have completed the 10+2 stage. The institute would also offer an inter-disciplinary two-year postgraduate Tech programme in systems and control engineering. Admission to the course would be open to both candidates from defence establishment and those from any of the six branches of engineering-aeronautical, chemical, civil, electrical, mechanical and metallurgical. In addition one-year diploma course in foundry *technology would be started to* train sponsored engineers in the foundries of large industrial undertakings.

Ramachandran elected Fellow of the Royal Society

Prof. G.N. Ramachandran of the Indian Institute of Science has been elected a Fellow of the Royal Society of England for his outstanding work in the field of molecular biophysics. Prof. Ramchandran is at present working in the molecular biophysics unit of the institute and has made significant contributions to the crystal structure analysis and molecular biophysics. He has been a student of Prof. C.V. Raman who himself was a member of the Royal Society and a noble laureate. He has been the Director, Centre of Advanced Study in Biophysics in the Madras University for several years.

Novel diploma course

A postgraduate diploma course in Industrial Relations will be started by Madras University from the next academic session. The Board of Studies set up by the university under the chairmanship of Mr. G. Ramanujam, General Secretary of the Indian National Trade Union Congress, has suggested that the course should be comprehensive and cover developments of human resources in industries. The course would be especially designed for the trade unions and industrial workers.

Kurukshetra gets back its old name

The B.N. Chakravarty University will now again be known as Kurukshetra University. The university established in 1956 was the first university of Harayana and was originally intended to give encouragement to Sanskrit studies. Later it developed into a multi-faculty university.

PG colleges in Rajasthan

Almost all the districts in Rjasthan barring Jaisalmer, Jalore and Barmer will have postgraduate colleges. The State Government has decided to upgrade the degree colleges to the postgraduate level at all district towns. The Government also permitted twelve degree colleges to be opened during the current financial year.

Aligarh researches on oils and fats

The Chemistry Department of Aligarh Muslim University has developed an important centre where organic chemistry-oriented fundamental research on fats and fatty acids is being carried out. In recognition of the outstanding contributions made during the last twenty years, the Indian Council of Agriculural Research, New Delhi has sanctioned a PL-480 Research Project with a grant of Rs. 4.4 lakhs. This has enabled the university to develop two research laboratories in which work on 'Herbaceous seed oils' is being carried out in collaboration with the Northen Research Laboratory of the United States Department of Agriculture. This project is the first of its kind for surveying the vegetable oil-seed potential in the country. The section also extends help to the local oil and vanaspati industries in solving their chemical problems. Recently various projects have been approved by the University Grants Commission under Dr. S.M.Osman, the principal investigator of the research project.

Pantnagar develops new irradiator

Scientists working in Pantnagar University have achieved *significant crop improvement with* the help of latest nuclear techniques. A neutron irradiator has been fabricated from indigenous sources costing only Rs. one thousand. An outstanding feature of this irradiator is that six samples can be irradiated simultaneously. The local irradiator would be costing much less in comparison to the imported one. The well developed isotopic research laboratory of Pantnagar University has done pioneering work in other fields as well.

Conferences, Seminars and Workshops

APRIL-MAY, 1977

Date	Title	Venue	Sponsoring Body
11 Apr-20 May	Summer Institute in Chemistry	Virudhunagar	V H.N.S.N. College
14 Apr-25 May	Summer Institute—English language teaching	Calicut Univ.	U.G.C., B.C.
18 Apr-22 May	State planning, with a background of macro-planning	Hyderabad	Administrative Staff College
24 Apr-4 June	Summer Institute—English language teaching	Baroda	U.G.C., B C.
25 Apr-3 June	Summer Institute—English language teaching	Madras Univ.	U.G.C , B.C.
1 May-30 May	Summer Institute in biology	Burla	Sambalpur University
2 May-15 May	Seminar for education officers of hill regions.	Nainital	National Staff College
2 May-21 May	Corrosion and protection of metals	Bombay	I. I. T.
3 May-13 June	Summer Institute—English language teaching.	Aurangabad	U.G.C., B.C.
4 May-17 May	Micro-programming	Bombay	I.I.T.
4 May-25 May	Solid State technology	Bombgy	I.I.T.
4 May-1 June	Summer Institute in mathematics	Tirupati	Sri Venkateswara University
5 May-8 June	Summer Institute in chemistry	Ahmednagar	Ahmednagar College
7 May-10 June	Summer Institute in animal biology	Hyderabad	Osmania University
9 May-14 May	National Management information seminar.	Bangalore	All India Management Assoc.
9 May-28 May	Numerical analysis of plates & shells	Bombay	I.I.T.
10 May-20 May	Theory & applications of mixed partial differential equations	Bangalore	Indian Institute of Science
10 May-10 June	Summer Institute in sociology	Poona	University of Poona
12 May-22 June	Summer Institute—English language teaching	Chandigarh	U.G.C . B.C. -
13 May-17 May	Symposium on 'K-theory'	Shillong (NE HU)	Deptt of Atomic Energy
15 May-30 May	Summer Institute in mathematics	Sivakasi	A.N.J.A. College
15 May-11 June	*Summer Institute in polymer chemistry*	*Vallabh Vidyanagar*	*Sardar Patel University*
16 May-20 May	Hospital administration	Hyderabad	Administrative Staff College
16 May-30 May	Summer Institute in botany	Surat	P.T. Sarvajanik College of Science
16 May-4 June	Finite element method & use of computers for stress analysis	Madras	I.I.T., Madras
16 May-4 June	Digital signal processing	Bombay	I.I.T.
16 May-4 June	Power apparatus & systems	Bombay	I.I.T.
16 May-4 June	Summer Institute in techniques in crystal research	Vallabh Vidyanagar	Sardar Patel University
16 May-10 June	Structural design of radio antennas & towers	Bombay	I.I.T.
16 May-11 June	Summer Institute in educational technology for teacher educators	Poona	SNDT College of education for Women
16 May-15 June	Cornell University Summer School in Hotel administration, planning & design	New Delhi	India Tourism Development Corporation
16 May-29 June	Summer Institute—English language teaching	Gauhati Univ.	U.G.C , B.C.
16 May-29 June	Summer Institute in statistics	Patna	Patna Univ.
17 May-17 June	Summer science institute in botany	Poona	Univ. of Poona
18 May-7 June	Microprocessors and applications	Bombay	I.I.T.
20 May-10 June	Summer Institute in chemistry	New Delhi	S.V. College, Delhi Univ.
20 May-30 June	Summer Institute—English language teaching	Bhopal Univ.	U.G.C., B.C.
20 May-30 June	Summer Institute—English language teaching	Ranchi Univ.	U.G.C., B.C.
20 May-30 June	Refresher course in mathematics	Jammu	University of Jammu
20 May	Summer Institute in geography	Aligarh	Aligarh Muslim University
23 May-26 May	All India seminar on ichthyology	Modinagar	M.M. College
23 May-28 May	Training course for education officers of Tamill Nadu	Madras	National Staff College
23 May-10 June	Applications of finite element & finite difference methods to engineering problems	Bombay	I.I.T.
23 May-12 June	Summer Institute in statistics	Aurangabad	Marathwada University
23 May-12 June	Summer workshop in optical physics	Madurai	American College
23 May-30 June	Summer Institute—English language teaching	Jaipur	U.G.C., B.C.
25 May-27 May	4th Annual conference of the Indian association for productivity, quality and reliability	Bombay	I.I.T.

1	2	3	4
25 May-31 May	Psycological problems and methods of rural communication in India	Udaipur	University of Udaipur
25 May-16 June	Summer Institute in chemistry	Raja Rammohanpur	University of North Bengal
28 May-7 July	Summer Institute in chemistry	Ludhiana	Government College
30 May-4 June	*Corporate planning*	*Hyderabad*	*Administrative Staff College*
30 May-18 June	Summer Institute in engineering geosciences	Roorkee	University of Roorkee
30 May-11 July	Summer Institute in education & community Services	Patiala	Punjabi University
30 May-July	Advance summer school in electronics	Poona	University of Poona
30 May-9 July	Summer Institute in mathematics	Roorkee	University of Roorkee
May	Orientation of elementary educator in educational TV	New Delhi	N.C.E.R.T.
May	Surface coatings and metal laminates	Bombay	I.I.T.
May- June	Correspondence course programme	Bangalore Reg Inst of English	C.I.E.F.L., Hyderabad
May- June	Corrosion & its control, 1st conference	Hyderabad	Society for Advancement of Electrochemical Sc. & Tech.
1 June-21 June	Summer Institute in chemistry	Roorkee	University of Roorkee
1 June-30 June	Summer Institute in analytical chemistry	Ludhiana	Punjab Agricultural University
1 June-30 June	Summer institute in statistics	Waltair	Andhra University
2 June-4 June	National systems conference	Coimbatore	PSG College of Technology
6 June-11 June	Programme planning & control systems for family planning administrators	Hyderabad	Administrative Staff College
6 June-11 June	Seminar on fluid dynamics and generalised spaces	Surat	SVR College of Engineering & Technology.
6 June-11 June	Symposium on integral transforms with classical and functional analytic approach	Kolhapur	Shivaji University
13 June-18 June	Financial management for non-financial executives	Musoorie	All India Management Association
13 June-25 June	Mine Safety engineering	Dhanbad	Indian School of Mines
13 June- 2 July	Summer Institute in Physics	Aurangabad	Marathwada University
17 June	Silver Jubilee function of the institution of Marine Technologists	Bombay	Instn of marine Technologists
20 June-23 June	Small-angle scattering of X-rays and the structure of macromolecules	Rourkela	Regional Engg. College
21 June (for 2 weeks)	Particle size analysis	Madras	I.I.T., Madras
29 June-1 July	Phosphorus in soils, crops & fertilisers	Bangalore	Indian Society of Soil Science
June 1977	Training course for education officers & principals of Higher Secondary Schools of Sikkim	Gangtok	National Staff College
June 1977	Workshop in Indian History & Culture	New Delhi	National Staff College (with USEFI).
June 1977	Orientation course in mental health	Bombay	Indian Council for Mental Health (Hygiene)

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Corporate planning	30 May- 4 June
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Management information & monitoring systems. 3rd National seminar	9 May-14 May
State planning, with a background of macro-planning	18 Apr.-22 May
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Digital signal processing	16 May- 4 June
Finite element method & use of computers for stress analysis	16 May- 4 June
Microprogramming	3 May-17 May
Education	
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Summer institute in education & community services	30 May-11 July
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Training course for education officers of Tamil Nadu	23 May-28 May
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Advance summer school in electronics I for post-graduate teachers in colleges	30 May- July
Applications of finite elements & finite difference methods to engineering problems	23 May-10 June
Corrosion and its control, 1st conference	May- June 1977
Corrosion and protection of metals	2 May-21 May

Fourth annual conference of Indian association for productivity, quality & reliability	25 May-27 May
Microprocessors and applications	18 May- 7 June
Mine safety engineering	13 June-25 June
National systems conference	2 June- 4 June
Numerical analysis of plates and shells	.9 May-28 May
Power apparatus and systems	16 May- 4 June
Seminar on fluid dynamics and generalised spaces	6 June-11 June
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Solid state technology	4 May-25 May
Structural design of radio antennas and towers	16 May-10 June
Summer institute in engineering geosciences	30 May-18 June
Surface coating and metal laminates	May 1977

English Language and Literature

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English language teaching for college teachers. summer institute	24 April- 4 June
English language teaching for college teachers. summer institute	25 April- 3 June
English language teaching for callege teachers. summer institute	3 May- 13 June
English language teaching for college teachers. summer institute	12 May-22 June
English language teaching for college teachers. summer institute	16 May-29 June
English language teaching for college teachers. summer institute	20 May-30 June
English language teaching for college teachers. summer institute	20 May-30 June
English language teaching for college teachers. summer institute	23 May-30 June

History and Geography

Summer institute in geography	20 May
Workshop in Indian history and culture	June 1977

Mathematics

Refresher course in mathematics	20 May-30 June
Summer institute in mathematics	4 May- 1 June
Summer institute in mathematics (Algebra and Analysis)	15 May-30 May
Summer institute in mathnmatics (Partial, Differential equations including numerical solution)	30 May- 9 July
Summer institute in statistics	16 May-29 June
Summer institute in statistics	23 May-12 June
Summer institute in statistics	1 June-30 June
Symposium on integral transforms with classical and functional analytic approach	6 June-11 June
Theory and applications of mixed partial, differential equations	10 May-20 May

Public Health

Hospital administration	16 May-20 May
Orientation course in mental health	June 1977
Programme planning and control systems for family planning administrators	6 June-11 June

Science

All India seminar on ichthyology	23 May-26 May
Particle size analysis	21 June (2 week)
Phosphorus in soils, crops and fertilisers	29 June-1 July
Small-angle scattering of X-rays and the structure of macromolecules	20 June-23 June
Summer institute in analytical chemistry	1 June-30 June
Summer institute in animal biology	7 May-10 June
Summer institute in biology	1 May-30 May
Summer institute in botany	16 May-30 May
Summer science institute in botany	17 May-17 June
Summer institute in chemistry	11 April-20 May
Summer institute in chemistry	5 May- 8 June
Summer institute in chemistry	25 May-16 June
Summer institute in chemistry	28 May- 7 July
Summer institute in chemistry	1 June-21 June
Summer institute in chemistry for microbial metabolities	20 May-10 June
Summer workship in optical physics	23 May-12 June
Summer institute in physics	13 June- 2 July
Summer institute in polymer chemistry	15 May 11 June
Summer institute in techniques in crystal research	16 May- 4 June
Symposium on 'K-theory'	13 May-17 May

Sociology

Psychological problems and methods of rural communication in India	25 May-31 May
Summer institute in sociology	10 May-10 June

Further details can be had from : The British Council Library
A.I.F.A.C.S. Building
Rafi Marg
NEW DELHI-110001.

Educational Reform

There are several reforms that have to be incorporated into our education system which right from the secondary school level to the university stage and even beyond is beset with evils. At the school, to start with children are exposed to too many subjects which are not really needed. What is the use of burdening the formative minds with a plethora of subjects like civics, social studies when they merely end up cramping the student's mind? On the other hand, a bit of Humanities—exposure, for instance, to master works of Indian and Western art in all its manifestations—biographies of great men in every field and histories of science and mathematics ought to form vital part of the training of every kid. Of all things we need to recover the glory of mathematics, a subject which has come to be dreaded by the students.

Even if we agree that most of the subjects currently being taught should be an essential part of the student's training emphasis should be laid on those which train the intellect and not aim at being merely informative. "Not the fact avails, but the use we make of it", so said Ralph Waldo Emerson. Most of the subjects we teach students are merely factual which can hardly be put to any decent use.

The situation in the colleges and the universities, though slightly better, since as a result of specialization, fewer subjects are taught in a more intensive manner, is not very encouraging. Improvements have, no doubt, taken place over the last decade in bringing the curriculum up-to-date along the curricula taught in western countries; but there is scope for more creative effort. We still ask essay-type questions in the examinations; there is no home-work assignment; either the students do not want to do any home-work; or, worse, the teachers themselves do not want to give such assignments. The result is that though there is reportedly an internal assessment in some universities, the student is still at the mercy of his performance in the annual examination. Then the students complain that if they take any house-tests, the teachers concerned do not bother to return the answer-books. If the teachers, after what the UGC has done them by way of ameliorating their lots by giving them good scales still take their jobs half-heartedly then it is matter of considerable shame for the profession.

There has been a lot of chagrin in the teaching circles, for the UGC, in giving the same pay scale to the college and the university lecturers, has equated the two categories of teachers. Worse, while the college teachers by getting an M. Phil degree can hope to have their efficiency bar removed, the university lecturers cannot hope for a promotion in their career even after they have put in ten years in teaching post-graduate classes. Moreover, while the college teacher, mostly an M.Sc. degree-holder, can increase his income by private tuition work, there is no such financial relief to the university lecturer on whom devolves the excludingly arduous task of teaching post-graduate classes, since the readers and professors are for the most part, busy "reading" and "professing" something not always related to the profession!

There is then the evil custom of appointing examiners in the university examinations. The lecturer, no matter, how brilliant he is, cannot hope to be appointed an examiner in the subject he has taught simply because he is not a Reader or a Professor! I know of an example where the examiner appointed was a professor with more than 300 publications to his credit, a Fellow of Indian National Academy of Sciences at that, who confessed that he did not have the faintest idea of the subject of which he was made the examiner. And it was I, a mere lecturer, who not only set the paper for him but also graded it for him. Not that I consider myself expert in the subject; only I was perhaps better informed about it.

Some appointments that are made in the universities are so much motivated by political leanings that the less said about it the better. In several cases people have been taken directly as Readers simply on the basis of a handful of research publications to their credit (publications whose merit is doubtful); this happened even when the candidate in question did not have any teaching experience. In a university a faculty member, now holding a prominent position, was reported to have told a lie when giving his scholastic achievements abroad; but nobody could do a thing about it, for the man at the helm of affairs was personally interested in the candidate. Now such a thing would not happen in, say, the U.S.A. Richard Feynman, the celebrated American physicist, had discovered a theorem, known after his name, while he was still an undergraduate student: the work is as oft-quoted as the one that fetched him the Nobel Prize but in the mid-Forties, when his theorem was behind him by six years and when he had earned his Ph.D. degree as well he was still an instructor in M.I.T. Again Prof. Murray Gell-Mann who had published his now famous 1953-scheme of classifying elementary particles, was a mere Instructor at Chicago and was promoted only after more work. And here in India we put mediocrities at important posts, which, after they have grabbed, by hook or by crook, they put to tyrannous use.

And lastly, the UGC encourages, on the one hand, publication of post-graduate level books by Indian scientists, and on the other hand, chooses such "experts" most of whom are naturally the Heads of the Departments, as are not the right sorts of experts to do the job honestly. In a country that believes in democratic set-up such a sorry state of affairs cannot be tolerated.

Madan S. Pathania
Dept. of Chemistry,
Panjab University,
Chandigarh.

U.G.C. and Librarians

It is a matter of much concern that the University Grants Commission has continued to betray a lackadaiscical attitude towards librarians in recent years by taking three long years to announce the revised pay scales of university and college librarians. It is still to announce its decision about one category of professional librarians, namely, Professional Assistant.

The entire community of librarians has felt much distressed at the decision of the University Grants Commission to deny the long-established principle of parity of pay scales and status with other members of the academic community. Besides, the UGC has thrown overboard the principles of natural justice and equity by creating two grades for university librarians and three grades for college librarians.

A new class of Professor-Librarians has been created in the pay scale of Rs. 1500-2500. In contrast, Professional-Librarians for the same position are to be placed in the grade of Rs.1500-2000. The principle of "equal pay for equal work" has been thrown overboard. Furthermore, professional qualification has been downgraded for a professional job.

The UGC has arrived at this extraordinary decision in the teeth of opposition from college and university librarians from all over the country, in violation of internationally accepted norms and general disapproval from the academic community. The Executive Councils, for instance, of Delhi and Jawaharlal Nehru Universities and Jamia Millia Islamia have passed resolutions endorsing the principle of parity. It raises the larger issue of the autonomy of institutions vis-a-vis bureaucracies like the UGC in the country.

Librarians are one with the academic community in its anxiety to raise the standards of higher education in the country and for that purpose they are ready to extend their unstinted cooperation to this national endeavour. They are, however, of the confirmed view that such a laudable objective can only be achieved by recruiting personnel of high level cadre in college and university libraries. In order to do so, it will be necessary to restore the parity of salary and status for college and university librarians, deputy librarians and assistant librarians as well as the grant of a minimum pay scale of Rs. 550-900 for Professional Assistants. Justice also needs to be done to the junior category of Semi-Professional Assistants.

Librarians have much expectations from the new Government and request the Education Minister to have a direct and continuing dialogue with the representatives of the profession not only about pay scales but also, more importantly, about the restructuring of university and college library systems which no longer answer to our present-day requirements.

Girja Kumar
Librarian
JNU, New Delhi

INDIAN INSTITUTE OF TECHNOLOGY
BOMBAY
Centre of Advance Studies in Resources Engg.
P. O. I. I. T. POWAI, BOMBAY-400076
Advertisement No. 876/77

Applications on plain paper are invited from the citizens of India for the following posts in the Centre of Advanced Studies in Resources Engineering on or before **16th May, 1977**, by the Head, Resources Engineering, I. I. T., Bombay, Powai, Bombay-400076. The posts are temporary for the present tenable for 3 to 4 years and likely to continue.

Post and Scale of Pay :

1. Office Superintendent : Rs. 650-30-740-35-880-EB-40-960.

Qualifications and experience

Essential : Good degreee or equivalent in Arts, Science, Commerce, Business Management or any other field.
At least three years experience in a Supervisory capacity in the actual conduct of meetings, and/or adequate experience of supervisory work in Government Offices/Educational Institutions/Business Organisation of repute including knowledge of Accounting procedures and maintenance of

Desirable : Knowledge of Office procedures, Rules and Regulations generally operative in Government offices/Educational Institutions.

2. **Post and Scale of Pay**
Senior Technical Assistant/ Senior Research Assistant : Rs. 550-25-750-EB-30-900
3. Junior Technical Assistant/ Junior Research Assistant : Rs. 425-15-500-EB-15-560-20-700

Qualifications and experience

Degree/Diploma in Engineering or M.Sc. in Geology/Applied Geology/Geophysics/Geochemistry/Chemistry/Geotechnical Engineering/Hydraulic Engineering/Photo interpretation/or Agricultural Science is essential.
Those with experience in Research and Laboratory work, Industries and field work in the appropriate areas will be preferred.

The Research and Development work is related to the actual field work for project sites anywhere in India and the selected candidates for posts at Serial Nos. 2 and 3 will be required to undertake field work for about six months in a year.

Candidates should furnish complete bio-data, last pay drawn, salary expected etc.

INDIAN INSTITUTE OF TECHNOLOGY, BOMAY

POWAI, BOMBAY–400076

Advertisement No. 875

ADMISSION TO POSTGRADUATE PROGRAMME IN ENGINEERING, SCIENCES AND HUMANITIES & SOCIAL SCIENCES (1977-78 SESSION)

Applications are invited for admission to various Postgraduate Programmes leading to the following degrees :

1. Doctor of Philosphy (Ph.D.) in the various departments of Engineering, Sciences, and Humanities & Social Sciences.
2. Master of Technology (M. Tech.) (two-year) in Aeronautical, Chemical, Civil, Electrical including Electronics, Mechanical and Metallurgical Engineering. After admission, a student may opt for the available fields of specialization or for a general programme in an Engineering discipline.
3. Inter-Disciplinary Programmes leading to M. Tech. in
   - i) Materials Science
   - ii) Industrial Engineering and Operations Research
   - iii) Environmental Science and Engineering
   - iv) Systems and Control Engineering

   There is a considerable choice of electives to meet the diverse interests of engineers and scientists from different disciplines.
4. Postgraduate Diploma (DIIT) (one-year) in Advanced Aerial Photo Interpretation, Applied Hydrology, Computer Science, Dock and Harbour Engineering and Foundry Technology. The DIIT programme in Industrial Design of 15 months duration is also offered. Whereas these programmes are meant largely for candidates sponsored from Industry, Government and Educational Organizations, other candidates may also be considered for admission.
5. Master of Science (M.Sc.) in Chemistry, Physics and Mathematics *(two-year), and Applied Geology* (three year). From this Academic session a new programme leading to M.Sc. Mathematics (specialization Computer Science) of two years duration is offered.

Considerable amount of flexibility including options for interdisciplinary studies is a principal feature of the above programmes. Details will be supplied in a Brochure alongwith the application form.

MINIMUM QUALIFICATIONS

FOR ADMISSION

Ph.D. Programme :
Engineering :

A second class (or equivalent grade) M. Tech./M.E./M.Sc. (Engg.) degree or a first class B. Tech./B.E./B Sc. (Engg.)/M.Sc. degree in the appropriate, or allied branch of Engineering or science.

Sciences and Humanities and Social Sciences :

A second class (or equivalent grade) M Sc./M.A. degree or a first class B. Tech/B.E./B.Sc. (Engg.) degree in the appropriate or allied branch of Science or Engineering or Humanities & Social Sciences.

External Candidates for Ph. D. Programme :

Candidates suitably qualified and working in recognized research Institutions, will be admitted as external candidates for the Ph. D. programme. *Information regarding* Pre-requisites and procedure for admission etc. are available in the Information Brochure which will be supplied alongwith application form.

M. Tech. Programme :

A Bachelor's degree in engineering or a Master's degree in Science with a minimum of 55% marks (or equivalent grade). However, to qualify for Scholarship of Rs. 400/- p.m. the minimum marks or equivalent grade at the qualifying examination shall be 60 per cent. The qualifying degree is required in an appropriate or allied branch of engineering or science as given below :

Programme to which admission is sought	*Qualifying degree required in*
Aeronautical Engg	Aeronautical, Civil, Electrical or Mechanical Engineering
Chemical Engineering	Chemical Engineering.
Civil Engineering	Civil, Aeronautical or Mechanical Engineering.
Electrical Engineering	Electrical Eng., also first class M.Sc. (Physics) with electronics/Wireless subjects will be eligible for some electives.
Mechanical Engineering	Mechanical, Aeronautical or Metallurgical Engineering.
Metallurgical Engineering	Metallurgical, Chemical, or Mechanical Engineering.
M. Tech. in Interdisciplinary Programmes :	
Materials Science	Aeronautical, Chemical, Civil, Electrical, Mechanical or Metallurgical Engineering. M.Sc. in Physics or Chemistry also considered.
Industrial Engineering and Operations Research	Aeronautical, Chemical, Civil Electrical, Mechanical or Metallurgical Engineering.
Environmental Science and Engineering	Aeronautical, Chemical, Civil, Electrical, Mechanical Engineering. M Sc. in Physics or Chemistry also considered.
Systems and Control Engg.	Aeronautical, Chemical, Civil, Electrical, Mechanical or Metallurgical Engineering.

DIIT Programme :

A good second class (or equivalent grade) B. E./B.Tech./B.Sc. (Engg.)/M. Sc.

degree in the appropriate field as indicated below :

D.I.I.T. in	*Qualifying degree required in*
Advanced Aerial Photo Interpretation	Civil Engg. or M.Sc. in Applied Geology.
Applied Hydrology	Civil Engg. or M.Sc. in Physics, Chemistry, Mathematics, Geology, Geophhsics, Meteorology or Agriculture.
Computer Science	Electrical, Electronics, Communication, Telecommunication (or M.Sc. in Physics with Electronics, or any other B.E./M.Sc. with sufficient background in Electronics and Mathematics).
Dock and Harbour Engineering	Civil Engineering.
Industrial Design	Bachelor's degree in Engineering/ Architecbture or equivalent with Aptitude for art and design work.
Foundry Technology	Metallurgical or Mechanical Engineering.

A limited Number of Seats is available to candidates who have passed Sections A, B and C of the Institution of Engineers (India) or the Indian Institute of Chemical Engineers for some Postgraduate Programmes. However, such candidates must have obtained a Minimum of 55% marks in Sections A and B and must have a minimum of two year's professional experience.

M.Sc. Programme :

A Bachelor's degree in Science or Mathematics with at least 55% marks at the qualifying examination as indicated below :

Degree to which admission is sought	*B.Sc. required in*
Applied Geology	Geology (Main) and Chemistry, Physics or Mathmatics (Sub). They should have passed higher secondary/pre-degree or equivalent examination with mathematics as one of the subjects.
Chemistry	Chemistry (Main) and Physics (Sub.) or Physics (Main) and Chemistry (Sub) or Chemistry (Main) and Mathematics (Sub) or Chemistry, Physics and Mathematics (3-year B.Sc.) Mathematics at I.Sc. or equivalent (2-year B.Sc.) and 1st year (3-year B.Sc.) essential.
Mathematics	Mathematics (Main) and Physics (Sub) or Chemistry, Physics and Mathematics.
Physics	Physics (Main) and Methematics (Sub) or Mathematics (Main) and Physics (Sub) or Chemistry, Physics and Mathematics.
Mathematics (specialization Computer Science)	Physics and/or Mathematics/Statistics as major/Principal subjects or Physics, Mathematics and Chemistry.

Candidates who have appeared for the corresponding qualifying examination and are awaiting results are also eligible to apply.

Written Test and Interview :

Candidates for admission to the M. Tech., DIIT and M.Sc. Programmes will have to appear for a written test and interview at IIT Bombay in the second week of July 1977 at their own expenses. Final selection is subject to medical examination.

Candidates will be tested in their own discipline irrespective of the department to which they seek admission.

Candidates who apply for any of the Interdisciplinary programmes will be tested in their own respective engineering or Science branch.

Candidates called for interview (in the second week of July) for research Scholarships for Ph.D. programme will be paid a single second class fare by the shortest route from the place of residence to the Institute and back.

SCHOLARSHIPS :

Scholarships are available to non-sponsored candidates admitted to Post-graduate Programmes provided they obtained 60% or more marks at the qualifying examination. In case of candidates admitted to M.Sc. programme as per the present rules, the number of scholarship available is 25 per cent of the number of the students admitted. Details regarding scholarships are given in the Information Brochure.

Candidates belonging to Scheduled Castes/Scheduled Tribes will be awarded Scholarships if they have secured not less than 55% marks (or equivalent grade) in the qualifying examination.

Information Brochure and Application Forms :

These can be had from the Deputy Registrar (Academic) by enclosing self-addressed stamped (40 paise) envelope of size about 27 cm x 12 cm and superscribed 'ADMISSION TO PH.D./M. TECH./DIIT/M.Sc.' as the case may be.

Last date of supply of Application forms by post :	**Monday the 6th June, 1977**
Last date of receipt of completed applications. :	**Monday the 13th June, 1977**

Completed application forms with crossed postal order for Rs. 5/- payable to Indian Institute of Technology, Bombay must reach the Deputy Registrar (Academic), I.I.T. Bombay-400076 on or before **13th June 1977.**

UNIVERSITY OF JABALPUR

Advertisement

No. Estt./77/3619 **Jabalpur,**

dated 1st April, 1977

Applications are invited on the plain paper for the following posts, viz :—

(1)* **Professors** : One each for Political Science, Law, Hindi & Linguistics and History & Ancient Indian History in the scale of pay of Rs. 1300-50-1500-75-1800-100-2000.

(2) **Readers** : One for Economics, one for Mathematics, one for English, two for Law, and two for Physics, in the scale of pay of Rs. 1100-50-1600.

(3) **Lecturers** : One each for Philosophy Chemistry, English and Sanskrit and two for Physics and two for Mathematics in the scale of pay of Rs.-620-40-900-50-1400.

Essential Minimum Qualifications :

For Professors & Readers :-

(a) (i) A Doctor's degree or published work of an equivalent high standard; and

(*b*) (*i*) A 2nd Class Master's dsgree in a relevant subject with atleast 50% marks (B in the seven point scale) or an equivalent degree of a foreign university; and

N.B. While taking into acuount the marks/grade, the marks/grade obtained in internal assessment, if any, shall be excluded.

(ii) Atleast 50% marks at the Bachelor's degree examination on the basis of which division is awarded at the degree level by the University; and

(iii) Atleast 50% marks at the Higher Secondary / Intermediate / Pre-University Examination, as the case may be;

and

(*c*) (*i*) *In the case of professors the experience of teaching of postgraduate classes shall be atleast 10 years and in the case of Readers the experience of teaching post-graduate classes shall be atleast 5 years; and*

(ii) In case of Professors evidence of candidates having been awarded a doctor's degree under his supervision and in the case of Reader atleast three years experience of guiding research.

For Lecturers :-

(*a*) (*i*): A doctor's degree or published research work of an equivalent high standard;and

(*b*) (*i*): A 2nd Class master's degree in a relevant subject with atleast 50% marks (B in the seven point scale) or an equivalent degree of a foreign university;and *N.B.* : (while taking into account the marks/grade, the marks/grade obtained in internal assessment, if any, shall be excluded).

(ii) Atleast 50% marks at the Bachelor's degree examination on the basis of which division is awarded at the degree level by the University, and

(iii) Atleast 50% marks at the Higher Secondary/Intermediate/Pre-University Examination, as the case may be-

Having regard to the need for developing inter-disciplinary programme the degree in (a) and (b) (i) above may be in relevant subjects.

N B. :-The requirement regarding minimum percentage of marks shall be **relaxed** upto 5% in case of scheduled caste/scheduled tribe candidates.

*The post of Professor in Law is temporary for the present. The post of Professor in History & Ancient Indian History shall be filled up on receipt of permission from the High Court.

Desirable Qualifications :

(a) Far Lecturer in Chemistry :

Specialization in Macromolecular Chemistry/Analytical Chemistry.

(b) For Readers in Physics :

First post : Specializatin with Doctorate Degree in Solid State Physics perferably with good knowledge of Electronics or Quantum mechanics. **Second post** : Specialization with Doctorate Degree in Electronics or Solid State Physics with sufficient experience either in micro-electronics and integrated circuits or in electrical properties, etc. of solids.

(c) *For Lecturer in Physics* :

First post : Doctorate Degree in Solid State Physics and for **Second post** Doctorate Degree in Electronics/Nuclear Physics/Solid State Physics/Quantum Mechanics and field theory, with experience of teac ing Post-graduate classes and sufficiently well-versed in an extra field.

(d) For Lecturer in Philosophy :

The candidate should be fconversant with Indian and/or Western Logic in general and should have good knowledge of modern Logic.

(e) For Reader in English :

An M. Litt. Degree from the CIEFL, Hyderabad, in the field of Linguistics & Phonetics or Methods & Materials or an equivalent qualification.

(f) For Lecturer in English :

A Post-graduate Diploma in the Teaching of English from the CIEFL, Hyderabad, with an overall grade of A or B or evidence of special work done in the field of English language teaching or Linguistics and Phonetics relevant to the University level.

(g) For Professor in law :

Specialization in International Law preferably some experience of administering the department.

(h) For one Reader in law

Specialization in Land Reforms in India and Family Law.

(i) For Readers in Mathematics :

Capability to conduct courses in Mathematical Statistics.

(j) *For one Lecturer in Mathematics* :

Specialization in Fourier Analysis.

Qualifications are relaxable in cases of candidates of exceptional merit. Names of eminent persons distinguished in Scholarships who do not apply may also be considered for selection. The candidates in their applications should give details of their 'Spacialization' if any. Canvassing in any form by or on behalf of the candidates will disqualify him.

The applications showing the details of qualifications stated above along with the information regarding the proof of the date of birth and past experience accompanied with a postal order for Rs. 5/- in the name of undersigned should reach here not later than **10th** May, **1977**. The candidates already in employment at *present, should send* their applications through proper channel. Those who have applied in response to earlier advertisements of this University in this regard last year and fulfil the conditions of minimum qualifications prescribed in this advertisment, need not apply again.

Sd/-
(B. K. Mishra)
Asstt. Registrar (Adm)
University of Jabalpur, Jabalpur.

MADURAI UNIVERSITY

Applications in the prescribed form are invited for the posts of one Professor in Economics, one Reader each in Economics and Law and Lecturers in Tamil, English, History, Economics, Commerce, Political Science, Geography and Law in the Institute of Correspondence Course and Continuing Education, Palkalainagar, Madurai-625021.

Scale of pay

Professor —**Rs.** *1100-50-1300-60-1600*

Reader —Rs. 700-50-1250

Lecturer —Rs. 400-40-800-50-950

(The UGC Scales of pay will be given on approval by the Government shortly).

Higher starting salary will be offered in deserving cases.

Preference would be given to Scheduled Caste/Scheduled Tribe candidates who are considered fit in respect of posts of Lecturers.

A minimum of seven years' teaching experience for Professors, five years' teaching experience for Readers and two years' teaching experience for Lecturers at the Post-graduate level is essential

The prescribed form of application and full details regarding qualifications, field of specialisation and experience required can be got from the undersigned on requisition accompanied by (i) a self-addressed envelope with postage stamps to the value of 0.40 paise affixed thereon and (ii) State Bank of India Challan for Rs. 5/- (Account No. 1) or Demand Draft for Rs. 5/- payable at Madurai drawn in favour of Registrar, Madurai *University*, Madurai-625 021.

The last date for receipt of applications is **25th May, 1977.**

Palkalainagar, **B. Murugan**
Madurai-625 021. **REGISTRAR.**
21.4.1977

INDIAN SCHOOL OF MINES
DHANBAD-826004

Advertisement No. 420009/77 **Dated April 16, 1977.**

The Indian School of Mines, "deemed" to be a University under the University Grants Commission Act, invites applications for the undermentioned posts :

1. **One Assistant Workshop Superintendent** in the pay scale of Rs. 700-1300/-
2. **One Hindi Translator** in the pay scale of Rs. 550-900/-

Besides pay, I S M employees get allowances as admissible to Central Government employees.

Qualifications :

Assistant Workshop Superintendent :

(1) A degree in Electrical Engineering or equivalent qualification, with at least 60% marks. (Essential)

(2) Experience for a period of at least two years, at a responsible supervisory level, in a composite workshop engaged in the repair of electrical and mechanical appliances and machinery/automobiles and in repair and fabrication of instruments and equipment for research purposes. (Essential)

(3) Experience of teaching Workshop Practice to undergaduate students. (Desirable)

Hindi Translator :

(1) M A (Hindi) with at least 60% marks. (Essential)

(2) Five years experience in translating English documents into Hindi and vice-versa. (Essential)

Age : Not more that 40 years for the post of Assistant Workshop Superintendent and 35 years for the post of Hindi Translator.

How to Apply : Applications on plain paper [giving 1.1 Name in full and address (in capital letters), 1.2 Date of birth, 2.1 Nationality, 2.2 State if Scheduled Caste/Tribe (in such cases, certificates from appropriate authorities to be attached), 3.1 Particulars of academic and technical qualifications, 3.2 Details of experience/position held, nature of duties, scale of pay (and last pay drawn) etc. 4.1 Minimum salary acceptable, 4.2 Minimum notice requried. 5. Additional information if any] and accompanied by a money order receipt for Rs. 8/- (Rs. 2/- for SC/ST candidates) for the post of Assistant Workshop Superintendent and Rs. 4/- (Re. 1/- for SC/ST candidates) for the post of Hindi Translator, in token of remittance of the application fee, should reach the Registrar, Indian School of Mines, Dhanbad-826004 by **20th May, 1977**. Those who are in service should apply through their employers. If the application made through proper channel is likely to be delayed, an advance copy may be sent, in which case the original application must also reach within ten days of the last date for receiving the applications.

General : First and Second Class Railway fare by the shortest route is reimbursable to candidates coming for interview for the post of Asstt. Workshop Supdt. and Hindi Translator, respectively.

The School reserves the right to consider cases of Contact Candidates whose names have been suggested by the experts even though they have not formally applied for the post.

Relaxation in age and qualifications may be given in case of candidates otherwise considered specially suitable.

THOSE WHO HAVE ALREADY APPLIED FOR THE POST OF ASSISTANT WORKSHOP SUPERINTENDENT IN RESPONSE TO EARLIER ADVT. NO. 420031/76 DATED 25-10-1976 NEED NOT APPLY AGAIN.

CANVASSING IN ANY FORM WILL BE CONSIDERED A DISQUALIFICATION.

M. S. RAMAMURTHY
REGISTRAR

TATA INSTITUTE OF SOCIAL SCIENCES
DEONAR, BOMBAY 400088

Applications in the prescribed form, which can be had from the Registrar, Tata Institute of Social Sciences, Sion-Trombay Road, Deonar, Bombay-400088 either personally or by sending self addressed envelope (23-1/2 cm x 10 cms.) with stamps worth 0.70 paise, along with application fee and other enclosures are invited for the following posts.

Lecturers : Five permanent posts in the following fields: (i) one for Social Welfare Administration; (ii) one for unit for Child and Youth Research (Preferably a person with good working knowledge in Marathi);

(iii) one in the unit for Sociology of Education with specialisation either in Social Work, Social Psychology, Sociology or Economics; (iv) & (v) two in the Unit for Urban Studies-one with specialisation in Human Geography and another with specialisation either in Sociology, Economics, Public Administration or Management Studies.

Qualifications & Experience:

(a) Doctor's degree or published work of an equally high standard and (b) consistently good academic record with I or high II class Master's degree in the relevant subject or an equivalent degree of a foreign university, OR First-Class Master's Degree in the relevant subject and considerable progress in work towards a Ph. D. degree; five years experience in teaching/research/research guidance and in the case of Social work positions professional experience.

Nature of Duties:- Selected candidates will be expected to engage in teaching, research, research guidance etc. in their field of specialization and field work coordination for M.A. students.

Pay Scale:

Rs. 700-40-1100-50-1600 plus D.A. and other allowances as per Institute rules. Preference will be given to SC/ST candidates subject to their fulfilling the conditions regarding qualifications and experience. Persons in employment should apply through their employers. Candidates called for interview will have to appear for interview in Bombay and out-station candidates will be paid First Class return fare by the shortest route on production of money receipts issued by the Railway. Applications in plain paper or without the application fee will not be entertained. Last date for receipt of request for application form is May 10, 1977. Last date for receipt of filled up application is **May 31, 1977.**

N. Krishnamoorthy
REGISTRAR

A list of Doctoral Theses Accepted by Indian Universities

SOCIAL SCIENCES

Psychology

1. Das, Nimaicharan. A psychometric study of low achievement of school final candidates in general science. *D.Sc.* University of Calcutta.
2. Dasgupta, Snehangshukumar. Psycho-diagnastic study of social morale of higher class school students (Bengalee) of different districts of West Bengal. University of Calcutta.
3. Pandey, Nirmala. International images and structural balance. University of Saugar.
4. Sharma, Bal Ram. A study of need for achievement, need satisfaction and self perception of civil servants. University of Delhi.
5. Sharma, Greesh Chandra. Personality of the Indian immigrant couples in United States. University of Saugar.

Anthropology

1. Saha, Kalachand. Socio-cultural attributes of family affecting fertility and morality of the Siyalgir in Bengal-Orrisa Border Region. University of Calcutta.

Sociology

1. Acharya, Nomita. Urban social structure and family planning. University of Jabalpur.
2. Baxamusa, R. M. The sociological analysis of the population policy of India. University of Bombay.
3. Mankidy, A. J. Psycho-sociological background of the scheduled caste entering the banking system. University of Bombay.

Political Science

1. Acharya, Mohanlal. A study of conditions of civil services in Madhya Pradesh. Indore University.
2. Goyal, Bishan Chand. A critical sample survey of the working and administration of the four categories of muncipalities in Meerut Division since independence. Meerut University.
3. Jha, Ganganath. Foreign policy of Thailand, 1954-71. Jawaharlal Nehru University.
4. Panwar, Rajender Dev. Freedom of trade and commerce in a federal polity: A comparative study with special reference to India. University of Delhi.
5. Raghav, Badan Singh. Tulsidas: Ek samajik tatha rajnaitik samiksha. (Hindi) Meerut University.
6. Ratna Reddy, A. V. The political philosophy of Swami Vivekananda. Indore University.
7. Shrivastava, Govind Prasad. The comparative study of Manu and Plato's social and political ideas. Jabalpur University.
8. Uma Devi Singh,. Punarjagran andolan evam Bhartiya rashtravad, 1828-1900 (Hindi) Meerut University.
9. Yadav, Dambar Narayan. A decade of Post Rana Nepal: Critical study in its foreign policy, 1951-60. University of Bihar.

Economics

1. Acharya, Sarthi. Microeconometric analysis of short run managerial decisions of small scale firms. I. I. T., Kanpur.
2. Baidya Nath Prasad Singh. Reserve Bank's control over Indian Money Market. University of Bihar.
3. Bapna, Shanti Lal. Aggregate supply response of crops in a developing region: A study of Ajmer District Rajasthan, India. Sardar Patel University.
4. Basu, Subhas Kanti. Commercial banks and agricultural credit: A study in regional disparity in India. Jawaharlal Nehru University.
5. Bhati, G. S. Industrial estates-an envaluation: A case study of the programme in Rajasthan. University of Bombay.
6. Godbole, M. D. Impact of industrial dispersal policies: A case study of Maharashtra. University of Bombay.
7. Lakshmana Rao, Vadapalli. Industrial entrepreneurship and productivity in Andhra Pradesh. Andhra University.
8. Nayak, S. S. Inflation and Balance of Payment. University of Bombay.
9. Pant, H. D. Monetary policy in Nepal: 1962-63 to 1972-73 University of Bombay.
10. Parikh, Geetanjali. Khadi and village industries: An analytical review. University of Bombay.
11. Patel, S. K. Import behaviour in India: A quarterly econometric analysis. University of Bombay.
12. Ram Binod Singh. The economic ideas of Dr. Ram Manohar Lohia. University of Bihar.
13. Shetty, S. V. India's trade relations with East European countries: A study in bilaterlism. University of Bombay.
14. Vepuru, Abraham. A case study of bullock and tractor using forms in West Godavari District. Andhra University.

Law

1. Khodie, Narmada. Limitation of shipowners' liabilities under Indian shipping Law. University of Bombay
2. Mata Din. State monopoly of road transport in India University of Delhi.
3. Singha, Nebakumar. Centre-state financial relations in India. University of Bombay.

Education

1. Gupta, Sat Paul. A study of some selected inputs for improving education of secondary school teachers (B.Ed. level) in Punjab. A systems approach. M. S. University of Baroda.
2. Lakshmi, S. Conducting achievement motivation development programme on teacher trainees and studying its effect on their performance. M. S. University of Baroda.
3. Sakhare, Seema Trimbak. A sample survey of women's opinion and behaviour relating to family life as corelates of educational status. Nagpur University.
4 Sharma, Chandra Kala An experimental study of different methods of teaching Sanskrit grammar to High School Classes. Meerut University.
5. Venkataiah, N. Impact of the farmers' functional literacy programme on the participants in Andhra Pradesh Sri Venkateswara University.
6. Vimla, Mahesh. Adhik prabhavshali tatha cum prabhavshali shikshon ka kaksha mein shabdik antah pratikriya ke swarup ka adhyayan. (Hindi) Meerut University.

Commerce

1. Agrawal, Narendra Kumar. Management of working capital in India. University of Delhi.
2. Jain, K. C. Income-tax administration and tax evasion in India. University of Jabalpur.
3. Kaveri, V. S. Financial ratios as predictors of borrowers health with reference to small scale industries in India. University of Bombay.
4. Nanak Chand. Role of investment trusts in industrial finance with special reference to Unit Trust of India. Meerut University.
5. Patel, M. L. Optional locations of market centres for balanced regional development Mandla (Tribal) District. Bhopal University.
6. Rao, K. N. M. Management of Capital in the cotton textile industry of Bombay. University of Bombay.

Management

1. Bose, Kakoli. A study of organizational stress in relation with successful managerial performance in a selected large business organization. University of Delhi.

2. Chandan, Jit Singh. **Development of small scale industries in India and the role of foreign assistance.** University to Delhi.

3. Pandey, G. **Relations between generalist and specialist officer in development administration at district level.** South Gujarat University.

4. Subrahamanyan, N. Cost accounting system for the aluminium industry. University of Delhi.

HUMANITIES

Philosophy

1. Banerjee, Kalpana. Some aspects of the philosophy of Charles Perice. Visva-Bharati.

2. Chaubey, Chandrika. The philosophy on non-violence and the problem of war with special reference to the teaching of the Buddha, the Bhagavad Gita and Gandhi. University of Bihar.

3. Jethi, Kiran. Astitvvad mein satta ka swarup. University of Jabalpur.

Linguistics

1. Reginald, Solomon. Bilingual situation in Southern Kerala. University of Kerala.

Fine Arts

1. Chakravarty, Krishna. Carya and Vaisnava padavli Kirtana of Bengal in relation to Hindustani music. University of Delhi.

Literature

English

1. Bhagyalakshmi, J. Ivy Compton Bernett as a novelist: A study of her art with special reference to plot and characterisation. Meerut University.

2. Dutta, Ujjal Kumar. A Study of the imagery in the plays of Christopher Marlowe. University of Bihar.

3. Mitra, Soumendra. William Hazlitt as thinker, literary critic and prose-writer. University of Jabalpur.

4. Sarma, M. Naghabhushana. An artist vision of life.: A study of the plays of Eugene O'Neill. Osmania University.

5. Viswanathan S. A study of the poetic interpretation of Shakespeare in the twentieth century with special reference to Wilson Knight and L. C. Knight. Sri Venkateswara University.

Pali

1. Tirpude, Kalawati Sadashiv. Vinya-Pitkacha sanskritik abhyas. Nagpur University.

Sanskrit

1. Biswas, Deepali. A study of the Asvins in the Vedas. University of Delhi.

2. Gupta, Pushpa. Pradhan Upanishadon (Rigveda, Yajurveda evam Atharvaveda) mein pratibimbit samaj aur sanskriti. University of Delhi.

3. Kalia, Madhu. The Caraka Samhita: A literary study. University of Delhi.

4. Jain, Kunwar Lal. Katyanapsatmsrautsutroyos tulanatmakamadhyayanam. University of Delhi.

5. Jha, Bilatt. Bal Ram samikshanam. Kameshwara Singh Darbhanga Sanskrit University.

6. Jha, Govind. Kashika Siddhant Komudsya tulnatmak adhyayanam. Kameshwara Singh Darbhanga Sanskrit University.

7. Jha, Krishandev. Kashikagatodaharan samiksha. Kameshwara Singh Darbhanga Sanskrit University.

8. Jha, Ramsewak. Vibhin dershaneshu shabd swarup nirupanam. Kameshwara Singh Darbhanga Sanskrit University.

9. Jha, Satyanalayaa. Uttar Ramcharit Samiksha. Kameshwara Singh Darbhanga Sanskrit University.

10. Mishra, Ramgulam. Kamlakar Bhatt Bhaskaracharya siddhantyotulnatmak adhyayanam. Kameshwara Singh Darbhanga Sanskrit University.

11. Misra, Asha Rani. Position of women in Kautilya's arthasastra. University of Delhi.

12. Mithilesh Kumar. A study of the Vrittisamuddesa of the Vakyapadiya. University of Delhi.

13. Nanavati, R. I. Secondary tales of the two great apics: A study of their form, content and function. South Gujarat University.

14. Pachchori, Indu. The historical Sanskrit-kavyas of Gujarat composed in 13th century A. D. Indore University.

15. Pandey, Shrikant. Ayurvediya rog vinishchey. Kameshwara Singh Darbhanga Sanskrit University.

16. Pracheta, Kitrayanand. Mahakavi Kalidasasya upmanam. Kameshwara Singh Darbhanga Sanskrit University.

17. Saraswati. A critical study of the legends of the Rigveda. University of Delhi.

18. Surinder Kaur. A study of Rukiminikalyan Mahakavya of Rajchudamani Dixit. University of Delhi.

19. Vaidik, Vedvati. A study of the commentaries on the Svetasvatar Upanished. University of Delhi.

Hindi

1. Bathla, Usha Rani. Matiram kee bhasha ka bhashavaigyanik adhyayan. Meerut University.

2. Bhagde, Shobha Vijay. Adhunik Hindi aur Marathi Geetikavya ka tulnatmak anushilan. 1900-1945. Nagpur University.

3. Chaudhari, Sarla. Ritikavya mein swachhandatavadi tatwa. University of Delhi.

4. Dubey, Rajendra Kumar. Uranv aur uska lok sahitya. Ravishankar University.

5. Dwivedi, Shyamakant. Nath Sant Sampradaya per yog tantar ke prabhav. University of Jabalpur.

6. Gandhi, Kanhaya Lal. Hindi Rajbhasha: Samasya aur swarup. Meerut University.

7. Grover, Shakuntla. Maithlisharan Gupta ke kavya per Tulsidas ka parbhav. University of Delhi.

8. Gupta, Ramesh Chandra. Chhayavad kee bhasha ka kavyashastriya adhyayan. University of Delhi.

9. Jain, Usha Rani. Hindi aur Bangla dhwniyon ka tulnatmak adhyayan. University of Delhi.

10. Jainarayan Singh. Bagheli lokgeeton mein sanskritik chetana evam saundarya bhavana. University of Jabalpur.

11. Mudgal, Jyotisar. Ritimukt kavya mein atishayokti, 1650-1850. University of Delhi.

12. Mukhi, Bhoj Kumar. Hindi upanyason mein nimnavarga ka chitran, 1947-1970. University of Delhi.

13. Nazir Mohammad. Sant sahitya ka abhivyanjanapark adhyayan. *D. Litt.* University of Jabalpur.

14. Rathore, Devi Singh. Madhavi Rao Sapre: Jiwan aur sahitya. Indore University.

15. Saroj Devi. Swatantryottar Hindi natakon mein sanskritik mulyon ka vighatan, University of Delhi.

16. Sharma, S. S. Gajanan Madhava Muktiboth ka sahitya: Ek anushilan. University of Bombay.

17. Sivaprasada Rao, Maddila. The influence of Gandhism on poetry in Hindi and Telugu: A comparative study. Andhra University.

18. Swami, Tarulatabai. Sant Kabir, Banarasidas, Anandghan and Shrimad Rajchandra ka tulnatmak adhyayan. University of Bombay.

19. Vidyottama. Tulsi ke Awadhi kavya mein vakrokti. University of Delhi.

20. Vyas, R. V. Upanyaskar Jainendra aur unke nari patra. University of Bombay.

Urdu

1. Mohammad Yaqub. Urdu literary contests: From Insha to Ghalib. University of Delhi.

Telugu

1. Deenavathi, Manapragada. Grandhavatarikas: Sources of Andhra history upto 16th century A. D. Osmania University.

2. Sujatha, M. Comparative study of Manucharitra and Vasucharitra. Osmania University.

Assamese

1. Sarma, Nabin Chandra. A critical study of Ananta Kandali's works. Gauhati University.

Bengali

1. Basu, Malay Kanti. Rupkatha: Its form and technique in modern Bengali literature. University of Calcutta.

2. Ghosh, Manju. Bangla samajik natake samaj O paribar, 1854-1912. Visva-Bharati.

3. Mahato, Binoy Kumar. Jharkhander Bangla loksahitya. University of Calcutta.

4. Mitra, Mantu Kumar. Kabi Gobinda Chandra Das: Kavyadaraao-silpamulya vichar. University of Calcutta.

5. Mookhopadhyay, Baidyanath. Nabajagaran-o-manaikatabooder bhumikay Dinabandhur natak. University of Calcutta.

6. Raybhaumik, Purnendunarayan. Rabindranather manas rupantar-o-upanyas. University of Calcutta.

Oriya

1. Mohanty, Devendranath. A study of Oriya vocabulary. Utakal University.

History

1. Dihingin Hemeswar. The early phases of struggle against the British rule in Assam, 1826-1863. Meerut University.

2. George, K. M. Archaeology of Kerala. M. S. University of Baroda.

3. Kamerkar, M. P. British-Baroda relations, 1818-1848. University of Bombay.

4. Mishra, Ramendra Nath. Britishkaleen Chhatisgarh ka parashasanik atihas, 1906-47. (Hindi) Ravishankar University.

5. Panigrathi, Tara Sankar. British rule in Mallabhum, 1751-1883. Sambalpur University.

6. Pathak, Kailash Kundanlal. India under Irwin and Willingdon, 1926-1936. Nagpur University.

7. Reddi, P. S. The working of the sixth schedule in North East India. Gauhati University.

8. Seshagiri Rao, Bhadriraju. History of freedom movement in Guntur District from 1921 to 1947. Andhra University.

9. Sharma, Babu Lal. Chittor, Udaipur evam Eklinglee kshetra mein uplabdh brahan dharma kee murtiyaon dwara sanskriti ka adhyayan. (Hindi) Vikram University.

10. Vasanthamadhava, K. G. Political history of Kanara from the fall of Vijayanagar till the rise of Haider Ali, 1565-1763. Karnatak University.

ALIGARH MUSLIM UNIVERSITY

Advertisement No. 2/77-78

Applications, on the prescribed form are invited for the following posts :

Scale of pay :

Professors : Rs. 1500-60-1800-100-2000-125/2-2500-plus allowances.

Readers : Rs. 1200-50-1300-60-1900 plus allowances.

Sl. No. Name of post Specialisation

1. Professor of Economics (Plan Post) — Mathematical Economics or Econometrics.

Qualifications :

(a) A *first or high second class* Master's Degree in Economics with Mathematical Economics / Econometrics as special subjects of an Indian University or equivalent foreign qualifications; (b) Research degree of a Doctor's standard or published work of high standard in the field; (c) At least ten years teaching experience of postgraduate classes in Mathematical Economics/ Econometrics and guiding research.

2. **Reader in Economics (Plan Post)** — **Public Finance.**

Qualifications :

(a) A first or high second class Master's Degree in Economics with Public Finance as a special paper of *an Indian University or equivalent* foreign qualifications; (b) Research degree of a doctor's standard or published work of high standard in the field of Publie Finance; and (c) At least five years experience of teaching postgraduate classes in Public Finance and some experience of guiding research

3. **Reader in English (Plan Post)** — In Comparative Language and Literature interested in the affinities between the literature of Europe and India.

Qualifications :

(a) A first or high second class Master's Degree in the subject concerned of an Indian University or an equivalent foreign qualification; (b) A research degree of a doctorate standard or published work of a high standard; and (c) At least five years experience of teaching postgraduate classes and some experience of guiding research.

Desirable :

Close acquaintance with Indo-European Drama or Poetry, preferably of a comparative nature.

4. **Reader in Economics—Non-Plan (Temporary but likely to become permanent.)** **Qualifications :**

(a) A first or high second class Master's Degree in the subject concerned of an Indian University or an equivalent foriegn qualification; (b) A research degree of a doctorate standard or published work of a high standard; and (c) At least five years experience of teaching postgraduate classes and some experience of guiding research.

Desirable : Knowledge of Statistics.

5. **Readers in Library Science (One Permanent and One Temporary.)**

Qualifications :

(a) A first or high second class Master's Degree in the subject concerned *of an Indian University or an equivalent* foreign qualification; (b) A research degree of a doctorate standard or published work of a high standerd; and (c) At least five years experience of teaching postgraduate classes and some experience of guiding research.

Desirable:

A first or a high second class M.A. or M.Sc. or M. Com. of and Indian University or an equivalent foreign qualification.

Note :

Those who have already applied in response to the earlier advertisement for the posts at Sl. No. 5 above, need not apply again.

Prescribed application forms and instructions may be had from the Deputy Registrar (Executive) either personally or by sending a self-addressed envelope of 23 x 10 cm. Last date for receipt of applications is **14th May**, 1977. **Incomplete** applications and those received late may not be considered

Higher initial start may be given to candidates possessing exceptional qualifications and experience. Candidates interviewed may be paid contribution towards their T.A. equal to one single second class railway fare only.

Jamalur Rahman
Registrar

THE UNIVERSITY OF KASHMIR

NOTICE

Applications in the prescribed form are invited for the post of Reader in Urdu in the pay scale of Rs. 1100-50-1300-75-1600 which should reach the undersigned by or before **15th May**, 1977.

The prescribed application forms can be had from the Registrar, University of Kashmir, Hazratbal, Srinagar-190006 on cash payment of Rs. 6/- or by sending a crossed postal order drawn in favour of the Registrar cashable at Srinagar post office alongwith a self addressed envelope (5"x11") with the necessary postage stamps.

The details in respect of special and desirable qualifications for the post can be had from the office of the undersigned.

The candidates who have already applied for the post in response to this office advertiesment notice of even number dated 29.11.1976 need not apply again.

Sd/-
Saif-ud-Din Soz
REGISTRAR

CURRENT DOCUMENTATION IN EDUCATION

A list of select articles culled from Periodicals received in AIU Library during March, 1977.

EDUCATIONAL PHILOSOPHY

Douglas, George H. "Is literacy really declining ?" *Educational Record* 57(3); 1977: 140-8.

Moore, Kathryn Mcdaniel. "Freedom and constraint in eighteenth century Harvard". *Journal of Higher Education* (Ohio) 47(6); Nov. Dec 76: 649-59.

EDUCATIONAL SOCIOLOGY

Amba Rao, U. "Higher education and occupational mobility among the scheduled caste youth". *Journal of Higher Education* 1(3); Spring 1976: 305-14.

Clarke, Charles. "Growth of realism in student politics". *Times Higher Education Supplement* (283); 25 Mar 77:11.

Dahrendorf, Ralf. "Fear is spur behind this unrest". *Times Higher Education Supplement* (281); 11 Mar 77:1,28.

Gangrade, K. D. "Intergeneration difference: A study in the generation gap". *Journal of Higher Education* 1(3); Spring 1976:325-45.

Gibb, Frances. "Birthrate threatens university growth administrators say". *Times Higher Education Supplement* (284); 1 Apr 77: 1.

Silhan, Venck, "Repression is not the key to a socialist education" *Times Higher Education Supplement* (284): 1 Apr 77:12.

Trow, Martin. "Higher education and moral development". *American Association of University Professors* (A.A.U.P.) *Bulletin* 62 (1): Apr 76:20-7.

EDUCATIONAL PLANNING

Jha, S. K."Planning university education". *University News* 15(2); 16 Jan 77:34-5.

Padmanabhan, C. B. "Expansion of higher Education in India in the context of recent trends in development strategy". *New Frontiers in Education* (7)1: Jan-Mar 77:82-92.

EDUCATIONAL ADMINISTRATION

Baumgartel, Howard. "Evaluation of management development efforts in the university setting: Problems, Programmes and research model". *New Frontiers in Education* 7(1); Jan-Mar 77:36-60.

Leister, Douglas V and Maclachlan, Douglas L. "Assessing the community college transfer market". *Journal of Higher Education* (Ohio) 47(6): Nov-Dec 76:661-80.

PROJECTIONS FROM a watershed as the public grows sceptical: Summary of the conference of university administrators' interim review of student numbers". *Times Higher Education Supplement* (284); 1 Apr 77:9.

Rao, M. R. and Raju, V. B. "University autonomy: A re-examination". *New Frontiers in Education* 7(1); Jan-Mar 77:61-76.

Santanagopalan, S. "Students participation in varsity governance in Australia". *University News* 15(3) 1 Feb 77:58,68.

Stauffer, Thomas M. "Selecting academic administrators". *Educational Record* 57(3); 1977: 170-5.

CURRICULUM

Aswathanarayana, U. "Towards excellence in the teaching of geological science at the postgraduate level". *Journal of Higher Education* 1(3); Spring 1976:387-96.

Dasgupta, Sugata. "Social work education: A critique of the classical model". *Journal of Higher Education* 1(3); Spring 1976:359-66.

Ganguly, S. N. "Social philosophy: A counter definition of philosophy". *Journal of Higher Education* 1(3); Spring 1976:367-73.

Mandke, Vijay V. "Management education and development". *Journal of Higher Education* 1(3); Spring 1976:349-57.

Rao, C.N.R. "University chemical education: Retrospect and prospect". *Journal of Higher Education* 1(3); Spring 1976: 375-86.

EDUCATIONAL RESEARCH

Carelli, M. Dino. "Educational research at international level; Features, expectations and limitations". *International Review of Education* 22(3); 1976:357-67.

Malmquist, Eve and Grundin, Hans U. "International co-operation in educational research". *International Review of Education* 22(3); 1976:339-56.

Prem Kripal. "Role played by the Asian Institute of Educational Planning in promoting research 1962-1972". *International Review of Education* 22(3); 1976:369-75.

Priscott, Linda. "Unesco institute for education, Hamburg: 25 years in the service of educational research". *International Review of Education* 22(3); 1976:311-15.

Sachsenmeier, Peter. "International educational research institutions". *International Review of Education* 22(3); 1976: 377-95.

Santhanam, M. R. "Research in teacher education: Some reflections". *New Frontiers in Education* 7(1); Jan-Mar 77:77-81.

EVALUATION

Kahlon, A. S. "Students evaluation and internal assessment". *University News* 15(3); 1 Feb 77:56-7.

Nurul Hasan, S. "Are examinations necessary ?" *Surya India* 1(6); Mar 77:22-5

ECONOMICS OF EDUCATION

Diwan, Romesh "Development education and the poor: Context of South Asia". *Economic and Political Weekly* 12(9); 26 Feb 77:401-8.

Mace, John. "Is shortage of engineers a self serving myth ?" *Times Higher Education Supplement* (284); 1 Apr 77:13

Nayar, D. P "Financing of Higher Education". *University News* 15(4); 16 Feb 77:82-4.

Saxena, J. P. "Unemployment among degree and diploma holders in engineering". *Artha Vijnana* 19(1); Mar 77:21-35.

Taubman, Paul. "Earnings, education, genetics and environment". *Journal of Human Resources* 11(4); Fall 76:447-61.

ADULT EDUCATION

Chittibabu, S. V. "New experiment in non-formal education". *University News* 15(4)); 16 Feb 77:80-1.

Draper, James A. "Future is close at hand: A look at some of th trends in adult and continuing education". *Indian Journal of Adult Education* 38(1); Jan 77:6-13.

Mathur, J. C. "Adult education as a partner in the development of the rural poor". *Indian Journal of Adult Education* 38(1); Jan 77:14-27.

OPEN UNIVERSITY and open learning. *A. .C. U. Bulletin of Current Documentation* (27); Feb 77:4-8.

COUNTRY STUDIES

Hoggart, Richard. "Uses of education". *Times Higher Education Supplement* (283); 25 Mar 77:15.

Mbunda, Daniel. "Non-formal education: The key to Tanzania's successful literacy campaign". *New Frontiers in Education* 7(1), Jan-Mar 77:93-6.

Sarup Singh "UPSC and the universities". *University News* 15(2); 16 Jan 77-32-3.

LIBRARIES

Aldous, Tony,. "Beautiful buildings where books feel at home". *Times Higher Education Supplement* (284); 1 Apr 77:7.

UNIVERSITY NEWS, MAY 1, 1977. Regd. No. R.N. 7180/63 Postal Regd. No. D (C) 534

VIKRAM UNIVERSITY, UJJAIN

No.Dev/77/475. **Dated: 8.4.77.**

Advertisement

Applications, on the prescribed form available from the University Office on payment of Rs.5/- in cash or by M.O./I.P.O. payable to the Registrar, are invited for the post of a Professor in the University School of Studies in Zoology with specialization in Fish and Fisheries.

(2) Pay Scale:

Rs.1100-50-1300-60-1600 (Likely to be revised)

(3) Qualifications:

(a) A first or second class Master's Degree of an Indian University or an equivalent qualification of a foreign University in the subject concerned.

(b) Either a Degree of the Doctorate Standard or published work of High Standard.

(c) Specialization of Fish and Fisheries is necessary.

(d) Not less than 10 years experience of Postgraduate teaching and experience of successfully guiding research.

Provided that in the case of a candidate of exceptional merit the Executive Council may, on the recommendation of the Selection Committee and with the prior approval of the Kuladhipati, relax any of the qualifications mentioned in (a) to (d) above.

It will be open for the University to consider the name of any eminent person distinguished in scholarship who may not have applied for the post.

Appointment will be on probation for two years in the first instance. Superannuation age is 60 years. In addition to pay, above scale carries dearness pay, dearness allowance, additional dearness allowance and the benefits of contributory Provident Fund (after confirmation) as per rules of the University in force from time to time. Higher start is possible to deserving candidates.

Scheduled Caste and Scheduled Tribes candidates will be given preference if found suitable.

Application complete in all respects and accompanied with Crossed I.P.O. of Rs.7 50 payable to the Registrar, Vikram University, Ujjain (M.P.) should reach the undersigned on or before 9th May, 1977. The envelope containing application form should be marked "Application for the post of Professor in the School of Studies in Zoology."

Application received after the last date or not on the prescribed form with fee may not be considered. Candidates already in service should apply through proper channel. Candidates called for interview will have to attend the same at their own cost.

The University reserves the right to fill-up or not to fill-up the post advertised and/or to call only selected candidates for interview.

Sd/-
(M.N. Bhouraskar)
Actg. Registrar
Vikram University, Ujjain (M.P.)

RABINDRA BHARATI UNIVERSITY
CALCUTTA—700 007

Employment Notice No. RB/19

APPLICATIONS are invited for the post of Professor of Drama in the Scale of Rs.1500-60-1800-100-2000-125/2-t2500 plus usual benefits of Contributory P.F., H.R.A. and D.A. as may be admissible in accordance with the University Rules. Higher initial pay admissible in any special Case. Qualifications: Essential: (1) Good educational background with proper grounding in theories; (2) Adequate experience in Direction, Stage acting, Production and Management of Theatre.

Desirable: (1) Teaching experience in Drama: (2) Research Publication and ability to guide research students.

Age: Not above 45 years as on 1.4.77, relaxable in cases of special merits.

Please apply to the Registrar in prescribed forms (available from Jorasanko Office) along with attested copies of Mark-sheets from S.F. onwards by **June 7, 1977** positively together with a non-refundable fee of Rs. 5/- only by Crossed Indian Postal Order, payable to RABINDRA BHARATI.

KURUKSHETRA UNIVERSITY
KURUKSHETRA

Advertisement No. 4/77

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(i) A first or high second Class Master's Degree of an Indian University or an equivalent qualification of a foreign University in Botany.
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(iii) About 10 years' experience of teaching at a University or College and some experience of guiding research, relaxable in very special cases.

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REGISTRAR

INDIAN SCHOOL OF MINES
DHANBAD 826004

No. 615060/77 **Dated April 5, 1977**

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The Indian School of Mines, a deemed university, invites applications for direct admission to the 3rd year of its 5-year programme leading to the award of M.Sc. degrees in Applied Geology. Only a limited number of seats are available.

Prescribed qualification : Candidates must have passed the B.Sc. degree examination of a recognised university with Geology, and any two of the following subjects: Physics, Chemistry and Mathematics and Higher Secondary or equivalent examination with Physics, Chemistry, Mathematics and English. Candidates appearing in the B. Sc. examination are also eligible to apply but must produce necessary evidence of having passed the examination by June 15,1977. Candidates may be required to appear for interview and test at Dhanbad. Prescribed application forms and Memorandum of Information may be obtained on payment of Rs. 5/- by M. O. payable to the Registrar, Indian School of Mines, Dhanbad-826004. Requests for application form must clearly specify that the candidate is seeking admission to 3rd year programme in Applied Geology. Completed application forms alongwith marksheets of all examinations passed must reach the undersigned latest by May 31, 1977.

M.S. RAMAMURTHY
REGISTRAR

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